NATURAL GEOLOGICAL RESPONSES TO ANTHROPOGENIC ALTERATIONS OF THE NAPLES BAY ESTUARINE SYSTEM

A Thesis

by

BRYAN ROBERT FIELDER

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

August 2008

Major Subject: Oceanography

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Approved by:

Chair of Committee,	Timothy Dellapenna
Committee Members,	Christopher Marshall
	William Sager
Head of Department,	Piers Chapman

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ABSTRACT

Natural Geological Responses to Anthropogenic Alterations of the Naples Bay Estuarine System. (August 2008)

Bryan Robert Fielder, B.S., Texas A&M University at Galveston

Chair of Advisory Committee: Dr. Timothy Dellapenna

The Naples Bay Estuarine System, situated in southwest Florida, has undergone extensive modifications caused directly and indirectly by anthropogenic influences. These alterations include the substitution of mangrove-forested shorelines with concrete bulkheads, canalization of the watershed and along the bay shoreline, and navigational channel dredging. The system consists of northern Naples Bay, southern Naples Bay, and Dollar Bay, whose shorelines range from highly developed to undeveloped, respectively. This project explored the natural geological response of the system to these alterations using data from side scan sonar, sediment grab samples, and vibracores.

In highly urbanized northern Naples Bay, benthic substrates consist primarily of muddy sands, with few oyster reefs. Southern Naples Bay and Dollar Bay, however, consist of coarser sediment, and are characterized by extensive mangrove shorelines and numerous oyster reefs. The impact of anthropogenic alterations has significantly shifted sediment distributions in northern Naples Bay from a coarser to a finer grained substrate. This shift has occurred to a lesser degree in southern Naples Bay, and Dollar Bay has not made this transition, due to the relative lack of anthropogenic modifications made to this part of the system.

To my wife, Nicci, for her endless friendship, encouragement, and love

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I would like to first and foremost thank my advisor, Dr. Tim Dellapenna, for making me part of the Coastal Geology Laboratory and providing personal, academic, and scientific opportunities I never would have experienced. I also would like to thank Dr. Dellapenna and my other committee members, Dr. Marshall and Dr. Sager, for their counsel and direction in preparing this thesis.

A special thanks to Dr. Michael Savarese from Florida Gulf Coast University, who was the catalyst for the entire project by arranging for funding through the South Florida Water Management District. Dr. Savarese was also instrumental in providing local and regional knowledge of the study site.

Finally, I am indebted to the members of the Coastal Geology Lab at Texas A&M University at Galveston for helping on the various aspects of this research – Nicole Fielder and Chris Noll, data collection and field research and Erin Weaver, Joe Carlin, Christina Pondell, Julie Manuel, and Haley Webster for core processing.

NOMENCLATURE

FGCU	Florida Gulf Coast University
GGC	Golden Gate Canal
NBES	Naples Bay Estuarine System
NBW	Naples Bay Watershed
NOAA	National Oceanic and Atmospheric Administration
SAV	Submerged Aquatic Vegetation
SERCC	Southeast Regional Climate Center
SFWMD	South Florida Water Management District
SWIM	Surface Water Improvement and Management plan
VWM	Volume Weighted Mean

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1. INTRODUCTION

The goal of the study was to document temporal and spatial changes in sedimentation of an estuarine that has undergone extensive urbanization within the bay and watershed. The focus of this study is the Naples Bay Estuarine System (NBES), which encompasses three provinces: northern Naples Bay, southern Naples Bay, and Dollar Bay (Fig. 1). The provinces are separated where northern Naples Bay constricts to a width of ~170 m at the confluence with Haldeman Creek, and where southern Naples Bay connects to Dollar Bay through 2 small inlets (~70 m and 130 m) south of the head of Gordon Pass (Fig. 1). Northern Naples Bay is influenced by the Gordon River (Fig. 1) and characterized by a 100% bulkheaded shoreline. Southern Naples Bay receives the Haldeman Creek fluvial input, distinguished by an eastern shoreline fringed by mangrove-forests and oyster reefs. The western shoreline of southern Naples Bay is highly urbanized and 100% bulkheaded. Dollar Bay is the natural portion of the NBES, consisting of densely forested red mangrove (*Rhizophora mangle*) shorelines and fringing oyster (*Crassostrea virginica*) reefs. The only modification to Dollar Bay is one dredged navigational waterway.

Rapid urbanization in the city of Naples was sparked after the completion of the Tamiami Trail (US 41) in 1926, which linked Tampa to Miami via Naples. The demand for waterfront property led to the construction of numerous residential canals, through dredge-and-fill projects, greatly altering the shoreline from mangrove forests to concrete seawalls (Fig. 2). Extensive anthropogenic alterations are believed to be the cause of increased water turbidity and silt deposition on the bay floor, inciting restoration efforts in the region. The spatial distributions of surficial sediments were explored to determine how anthropogenic influences are currently controlling sedimentary processes in the NBES, while subsurface stratigraphy documented how

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This thesis follows the style of *Estuaries and Coasts.*

bay substrates transitioned from pre- to post-modification of Naples Bay and surrounding areas.

Fig. 1. The NBES, located in southwest Florida. Three provinces of the NBES – northern Naples Bay (orange), southern Naples Bay (blue), and Dollar Bay (purple). Aerial photographs and Florida polygon provided by FGDL (2006).

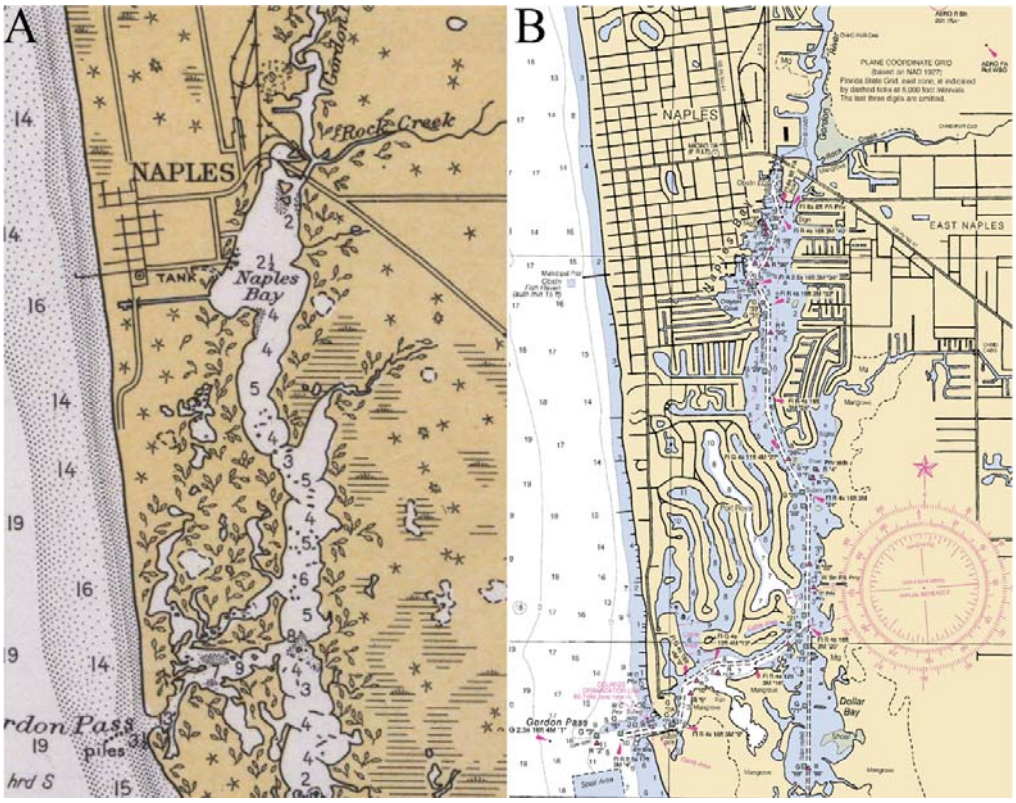

Fig. 2. NOAA navigational charts depicting alterations between 1933 (A) and 2005 (B). Charts obtained from NOAA (2004).

2. BACKGROUND

2.1. Regional Geologic Setting

The Florida peninsula and its broad, flat continental shelf represent approximately 100 million years of the formation of a shallow, emergent carbonate platform, overlying much older volcanic basement rocks (Smith and Lord 1997). A carbonate environment persisted because the Suwannee Straits, a shallow (~150 m deep) channel, separated the Appalachian Mountain detrital sediment from the growing Florida carbonate platform (McKinney 1984). Roughly 30 Ma, the straits had filled and siliciclastic material began its southerly migration over the carbonate platform, sourcing most of the siliciclastic material found on the Florida peninsula today from the Appalachians. During the Quaternary, fluctuating sea level transported sediment southward and distributed it over most of the Florida Platform. In recent history, most bay sediment is supplied by offshore sources (Parkinson 1991), while limited river transported sediment is trapped in the estuaries (Davis and Barnard 2003).

GIS data from the Florida Geographic Data Library (2006) shows the Naples Bay Watershed (NBW) currently drains three distinct surficial geologic units in its approximately 310 km^2 basin (Fig. 3). Nearly 23% of the watershed drains a Pleistocene shelly-sand and clay, located in the northernmost portion of the NBW and along the entire coastal region (up to 4 km inland) south to Gordon Pass. At Gordon Pass, and underlying Dollar Bay, the geology of the watershed transitions to an early- to mid-Holocene peat (Parkinson 1991), making up less than 2% of the drainage area. The remainder of the watershed encompasses the late Pliocene Tamiami limestone, whose composition varies in its regional extent, but is mostly a siliciclastic sand and limestone mixture within the NBW (Gleason and Stone 1994).

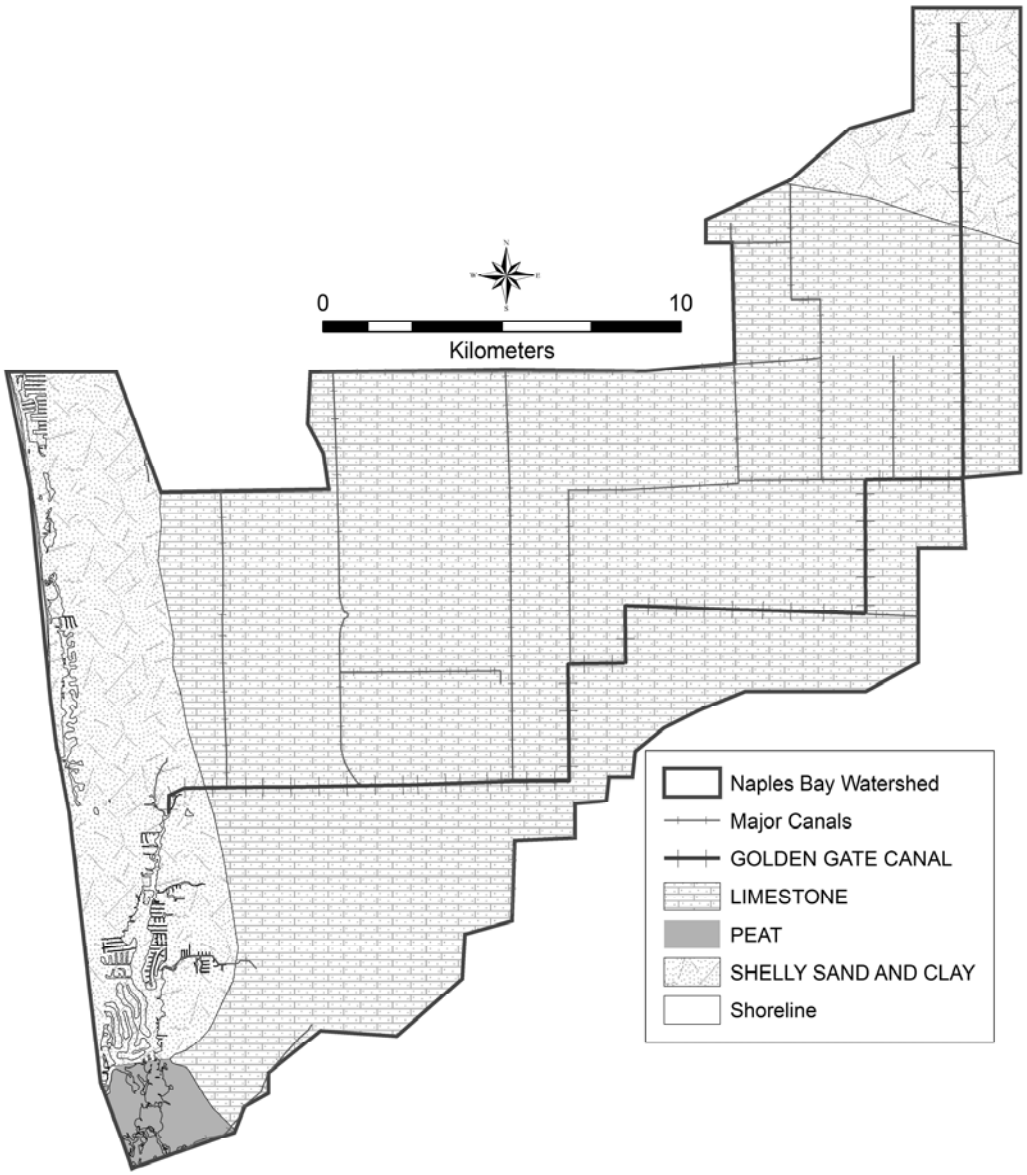

Fig. 3. Modern NBW encompassing three surficial geologic units, with the location of major canals (data from FGDL 2006).

2.2. Environmental Setting

The shallow bay system resulted from the drowning of fluvial valleys during the Holocene sea level transgression. The broad, low-relief of the western Florida shelf remains fairly constant throughout the NBW, with maximum elevations reaching 6 m approximately 32

km northeast of Naples Bay (SFWMD 2006). Average annual rainfall of 137 cm (SERCC 2005) drains through the multitude of canals, which bring an enhanced supply of sediment and pollutants to the NBES relative to pre-anthropogenic modifications.

The entire Gulf coastline of Florida is considered a low-energy environment, but the classification between a tide-dominated and wave-dominated system varies by the relative influence of each component (Davis and Barnard 2003). Since the wave regime and tidal range are small, a slight deviation in one component can shift the energy classification in either direction. The coastline adjacent to Naples Bay has an average tidal range of 75 cm and wave heights of 10-20 cm, but, generally, can be classified as a tide-dominated system. Tides along the Florida west coast exhibit mixed semi-diurnal patterns that are generally less than a meter. However, in Naples Bay, the tidal currents are focused through Gordon Pass, and flow velocities can be quite intense. Simpson et al. (1979) observed maximum tidal velocities through Gordon Pass of 0.98 $ms^{-1}$and 0.58 ms^{-1} for flood and ebb tides, respectively.

Because the tidal cycles are fairly constant, shifts in energy regimes are dominated by wind and wave patterns. Wind and wave forcing varies with two dominant seasonal patterns. Spring and summer months are dictated by weak southerly winds, however, tropical cyclones (with a 3-4 year occurrence within 100 km) can dramatically shift the summertime energy regime. Most tropical storms travel across the Florida peninsula from east to west and strike the Gulf coast with dampened forces. While the occurrence of a direct hit by a hurricane along the western coast of Florida is rare, distal storms can increase tide and wave amplitudes. In the late fall and winter months, the wind and wave climate is controlled by the passage of cold fronts sweeping down from the higher latitudes of North America. Once the front passes, strong northerly winds, capable of 15 ms^{-1}, can persist for up to 48 hours (Davis and Barnard 2003). The intense and persistent winds can produce waves > 1 m, considerably higher than the fair

weather conditions. These conditions setup the dominant annual longshore currents from north to south. Along-shelf transportation of sediment is not considered as important as the across-shelf transportation resulting from prevailing fair-weather conditions and swell generated from distant tropical cyclones (Parkinson 1991).

2.3. Historical Anthropogenic Alterations to the NBES

The NBES underwent significant changes in response to rapid development and urbanization of southern Florida and the city of Naples. The most notable anthropogenic influences have been canalization of the watershed and bay perimeter, removal and replacement of mangrove-forested shorelines with concrete and rip rap bulkheads, and dredging of navigational waterways within the system. Major developments along the NBES shoreline took place in the 1950s and late 1960s, however early infrastructure, such as shellfish processing houses and boat ramps, started in the early 1900s (Simpson et al. 1979).

Mangrove forests have been established in southwestern Florida since 3.5 ka, when sea level rise slowed (Scholl 1964). Mangrove systems have long been studied for their effectiveness at trapping sediment through a variety of methods including complex flow patterns consisting of jets, eddies, and stagnation zones (Furukawa et al. 1997). Another efficient trapping mechanism is produced by the high organic content in mangrove systems, which aids in the flocculation of fine silt and clay (Wolanski 1995). Schmid et al. (2005) reports 70% of the mangrove forests surrounding Naples Bay were destroyed through urbanization. Removal of mangrove systems often results in a diminished ebb tidal flushing of an estuary (Augustinus 1995).

Expansion of the NBW to the north and east via ~300 km of canals increased the watershed area from 26 km^2 to 310 km^2 (SFWMD 2007). Simpson et al. (1979) estimated discharge from Gordon River increased 20-40 times during the wet season since the addition of

the Golden Gate Canal (GGC, Fig. 3) in the 1960s. The canals were constructed through dredge-and-fill operations, whereby canals were excavated through upland marsh and the material deposited atop adjacent marsh. Emplacement of canals within a watershed have been shown to increase sediment loads to estuaries, predominantly fine sediments, while bypassing the marshes and swamps, which normally act as buffers to an estuary (Herngren et al. 2006; Kennish 2001).

Native Americans (dated to 2.5 ka) dredged the first canal, connecting northern Naples Bay to the Gulf of Mexico (Schmid et al. 2005). In 1930, the first navigation channel was dredged from northern Naples Bay out through Gordon Pass and was extended through Dollar Bay down to Marco Pass. Dredged navigational channels have since been maintained to a depth of about 3 m. Dredging acts to resuspend buried sediment and marine processes tend to winnow fine sediments away and redeposit them elsewhere. As noted by Kilgen and Dugas (1989), extensive dredging activities remove oyster and submerged aquatic vegetation (SAV) habitat, as well as create turbid waters, which can potentially suffocate both flora and fauna.

3. METHODS

In May of 2005 and 2006, an array of tools was used to map the distribution of surficial sediment and late-Holocene strata within the NBES. Surficial mapping of the seafloor was conducted with a side scan sonar system and grab samples. Subsurface strata were investigated by vibracoring and subsequent grain size analyses. Survey lines for side scan sonar, as well as grab sample and vibracore locations, were plotted in Hypack® (Middletown, CT), a survey-grade navigational software. All data were georeferenced using a Trimble® Ag132® DGPS system (Sunnyvale, CA, USA).

Geophysical Data Acquisition and Processing

Side scan sonar data were acquired using an Edgetech® 272 TD towfish (West Wareham, MA, USA) and CODA® Geosurvey software (New York, NY, USA). Side scan sonar uses a high-frequency acoustic signal (100 kHz) to image bottom types and structures at a specified swath width (100 m). The image produced of the bottom constituents is based on backscatter intensity, which is the amplitude of the acoustic signal returned to the towfish after striking the seafloor. This backscatter intensity is a product of variations in the sediment textures, including grain size, density, and roughness. High backscatter (lighter tones) indicates coarser grain sizes, such as shell and coarse sands. High backscatter areas in Naples Bay were also indicative of concrete bulkheads, mangrove shorelines, and oyster reefs, each having a distinctive pattern in the side scan record. Low backscatter (darker tones) represents finer-grained sediments, typically clay and silt-size fractions. The CODA Geosurvey software was used to both acquire and process the side scan sonar data. Processing involves adjusting the gain settings of the acquired acoustic signal so each line, when mosaicked, smoothly transitions from one line to the other. Mosaicking of all lines produces a grayscale, geo-referenced image of the entire bay, allowing for the identification of spatial variation in bay substrates.

Geological Data Acquisition and Processing

In May 2005, side scan sonar data were ground-truthed using a Ponar-style grab sampler and a modified set of martini shakers, which acted as a dredge-style sampler. Each sample was analyzed for grain size distribution at Florida Gulf Coast University (FGCU). These data allowed for the correlation between backscatter intensity of the side scan sonar mosaic and sediment grain size. In FGCU's analyses, only grain sizes of ≤1 mm were determined, thus coarse sand and gravel fractions are not represented in the grab sample data (Appendix A).

Temporal scales of sedimentation were evaluated with vibracores collected in May 2006. Vibracoring is a technique where a specialized generator produces a harmonic vibration sent through a flexible cable to a vibrating head, which is attached to a 7.5 cm diameter aluminum core barrel. The core barrel is vibrated, causing the adjacent sediment to liquefy and allowing for penetration of the aluminum barrel. Vibration of the core barrel is dampened by increasing barrel length and depth of core penetration, ultimately ceasing the downward penetration of the core barrel. The cores were processed and analyzed in order to determine grain size, sedimentary fabric and textures, and porosity. Through the summer and fall of 2006, the vibracores were split in half, lengthwise. The core halves were photographed and given a qualitative description of grain size, changes in lithology, and other apparent features to assess sub-sampling intervals. Both core halves were sampled at 1 cm intervals through the first 100 cm of the core, then at 2 cm intervals beyond 100 cm.

An analysis of water content was performed by weighing out an aliquot of approximately 10-15 grams, drying, and reweighing the dried sample. Water content analysis was executed on every interval throughout the core, except for intervals beyond 100 cm in core depth, where only every 2-3 intervals were analyzed to save time. The water content of a

sediment sample was converted to porosity values, where a porosity value of one is equal to 100% water content.

Grain size distribution for the grab samples and vibracores was evaluated using a Malvern® Mastersizer 2000™ (Malvern, UK). The Mastersizer 2000 is a particle size analyzer using laser diffraction to produce a grain size distribution ranging from 0.02 μm to 2000 μm. Only a few intervals from each lithological unit (depending on unit thickness) and the intervals adjacent to a lithological change were used for grain size classification within each core. An aliquot between 5-10 g was used for each sample run. The sample was dispersed with sodium hexametaphosphate and sonicated to separate the individual sediment grains. Next, the sample was wet-sieved through a 2 mm mesh screen, with the >2 mm particles dried, weighed, and described. A magnetic stir plate homogenized the sample solution, creating a vortex. A pipette was used to take draws half-way across the vortex and half-way down the jar. Ten milliliters of the solution was placed in a pre-weighed tin, dried, and re-weighed to determine the total mass of the sample. Pipette draws were then added to the Malvern until instrument obscuration reached an optimum level to properly analyze a sample. Data collected from the Malvern software and dried samples were inserted into a spreadsheet for further calculations, yielding percentages of any grain size, or range of sizes, that was desired. Based on Shepard's (1954) classification, varying percentages of sand, silt, and clay were assigned a numerical value from 1 to 10, where each value had an associated qualitative descriptor (i.e. sandy silt; Appendix A). These values were interpolated in ESRI® ArcGIS® (Redlands, CA, USA), producing maps of surficial sediment distribution (Figs. 4B, 5B, 7B, and 8B). Volume-weighted mean grain size (VWM, expressed in microns) was calculated by the Malvern software for each sample utilizing only the particle sizes (0.02 μm to 2000 μm) suited for the instrument, thus gravel size fractions (> 2000 μm) were not incorporated into the VWM calculation.

4. RESULTS

Side scan sonar data, coupled with grain size data from grab samples and vibracores were used to describe sediment distributions of the NBES over spatial and temporal scales. Surface and subsurface data are separated and described below based on the each province of the NBES.

4.1 Surface Sediment

Side scan sonar data imaged nearly 100% of the navigable portions of the NBES surface (Fig. 4A). Canals directly connected to the bay, Gordon Pass, and shallow-water portions of the bay system were not imaged with side scan sonar. Backscatter intensities from the side scan sonar were ground-truthed with grain size data from grab samples and core tops, producing a grain size distribution using Shepard's classification (Fig. 4B). Location of vibracores and grab samples discussed in the text can found in the Shepard's classification figures for each province of the NBES.

4.1.1 Northern Naples Bay

The side scan sonar mosaic reveals solid high backscatter along the entire shoreline of northern Naples Bay (Fig. 5A), indicative of engineered concrete or rip-rap bulkheads. Low backscatter marks the location of navigational channels and dredged residential docks filled with finer-grained sediment, usually fine sands and silts. Within the low backscatter of the channels, faint, wavy higher backscatter signifies the wake of a passing boat. On the edges of the navigational channels and shallow areas, propeller scars are detectable in the side scan sonar record as relatively straight, low backscatter streaks(Fig. 6). Also noticeable in the side scan sonar are a few oyster reefs, which are primarily subtidal, and recognized by mottled high and low backscatter with a darker shadow extending away from the acoustic source. The remainder of the northern

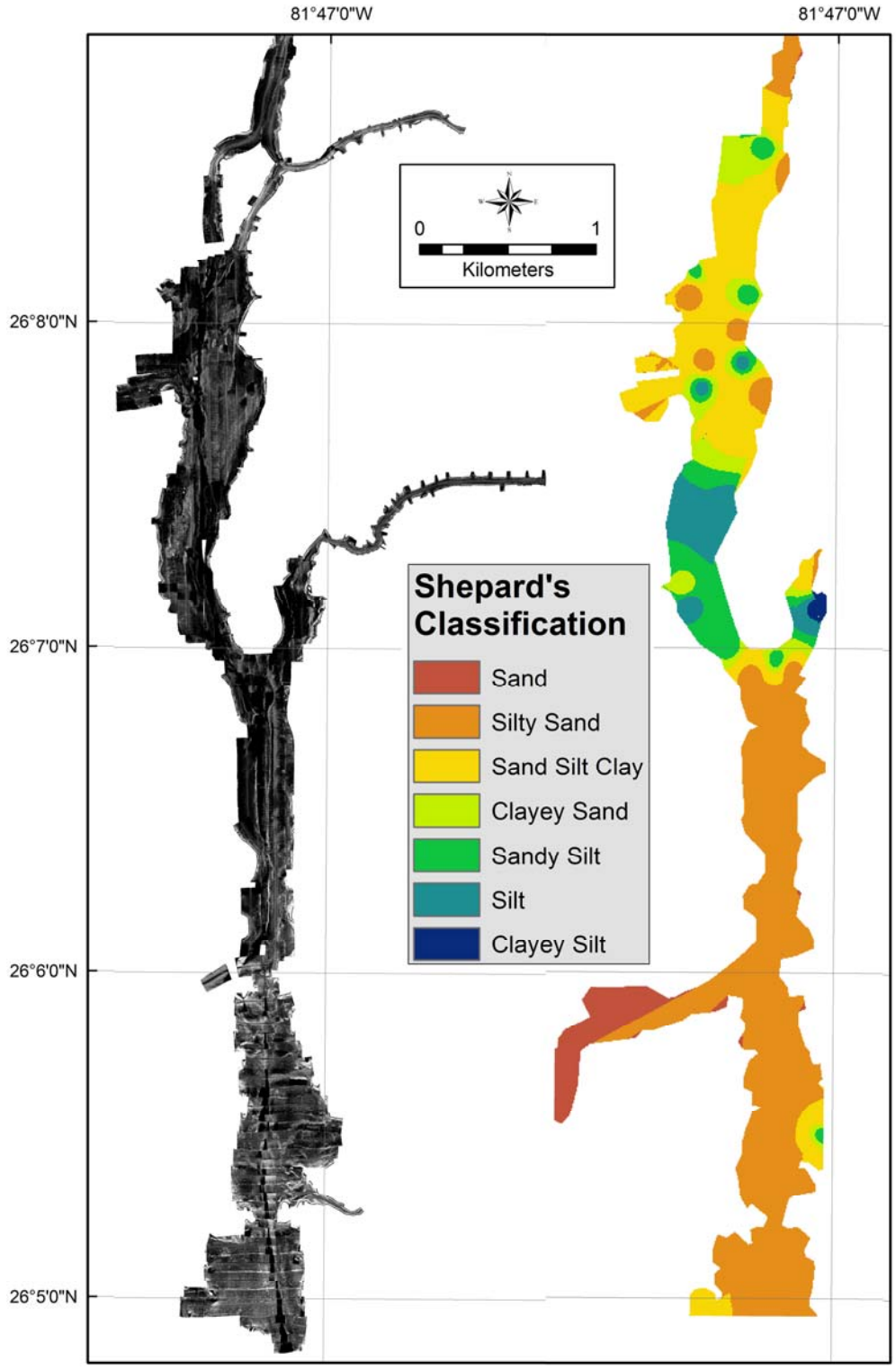

Fig. 4. Side scan sonar mosaic (left) and Shepard's classification of surficial sediment distribution (right) for the entire NBES.

Naples Bay side scan sonar mosaic, excluding the aforementioned features, displays a relatively uniform distribution of moderate backscatter, signifying mixed fine sand and mud.

Surface grain size distributions using Shepard's classification (Fig. 5B) reveal a heterogeneous benthic substrate. The upper- to mid-portions of northern Naples Bay are dominated by relatively equal proportions of sand, silt, and clay. However, within this province, isolated areas of generally finer sediment exist proximal to residential canals adjoined to the bay (NB05 and NB11). Near the middle of northern Naples Bay, substrates transition to a silt dominated region, coarsening slightly at the southern end.

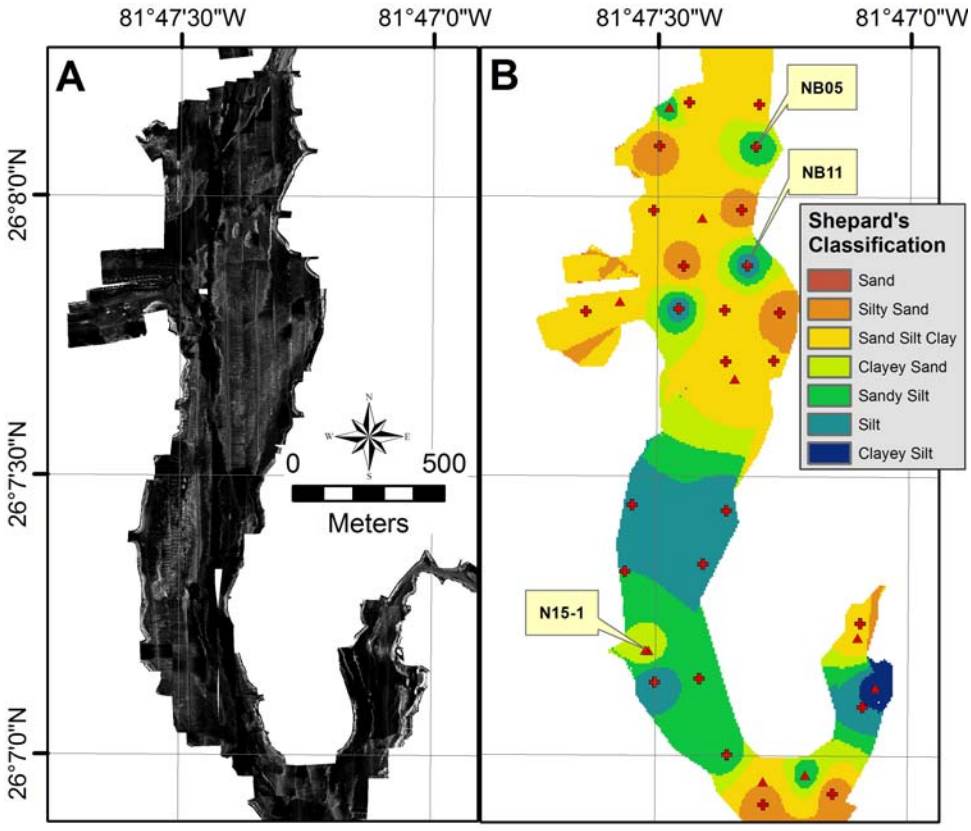

Fig. 5. Northern Naples Bay side scan sonar mosaic (A) and Shepard's classification of grain size distribution of grab samples and core tops (B). Core (triangles) and grab sample (crosses) locations shown with labels for samples discussed in text.

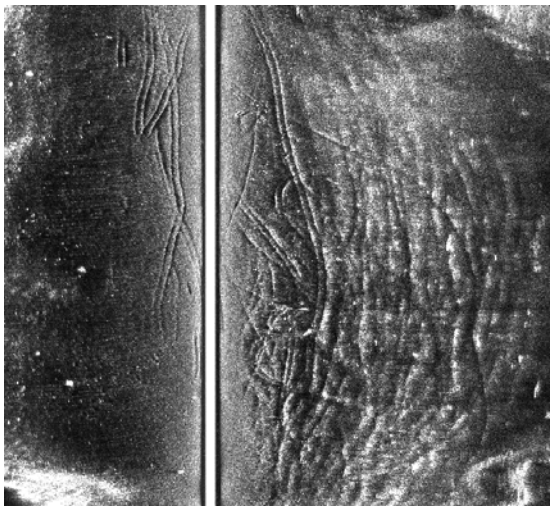

Fig. 6. Evidence of propeller scars in the side scan sonar mosaic can be found throughout the bay. New propeller scars are evidenced by sharper, straighter lines and older scars by less distinct lines. Distance between one set of parallel scars is approximately 1 m, indicating a two propeller boat.

4.1.2 Southern Naples Bay

Backscatter intensities from the side scan sonar in southern Naples Bay (Fig. 7A) are slightly stronger than those found in northern Naples Bay. The main difference in side scan signals in southern Naples Bay is the "rougher" texture, demonstrated by a more mottled pattern of high and low backscatter. This indicates a coarser substrate, when compared to the more uniform, moderate backscatter of northern Naples Bay. The overall distribution of sediment exhibits a southward transition to higher and rougher backscatter, indicative of increasing grain size and bed roughness. Another notable change in the side scan record is the two different shoreline signals. The western shoreline is dominated by a thin line of high backscatter, signifying concrete bulkheads. The eastern shoreline grades into wide areas of patchy, high backscatter, indicative of oyster reefs fringing the natural mangrove shoreline. Fringing oyster reefs exist as small clumps dispersed throughout the benthic substrate, as well as attached to the mangrove roots. The backscatter of fringing oyster reefs are similar in appearance to the isolated

oyster reefs of northern Naples Bay, except here they tend to grade up to the mangroves, leaving no acoustic shadow behind them. Two small coves along the northeastern shoreline of southern Naples Bay were not surveyed because of very shallow, intertidal oyster reefs.

Near the mouth of Haldeman Creek, the distribution of sediment type based on Shepard's classification (Fig. 7B) shows a strong resemblance to the distribution found in northern Naples Bay. In the lower mouth, a large area of sand, silt, clay transitions to a large silt-dominated area. This silt-dominated area makes a southerly transition back to coarser material into the main stem of the bay. The main stem of southern Naples Bay shows a uniform

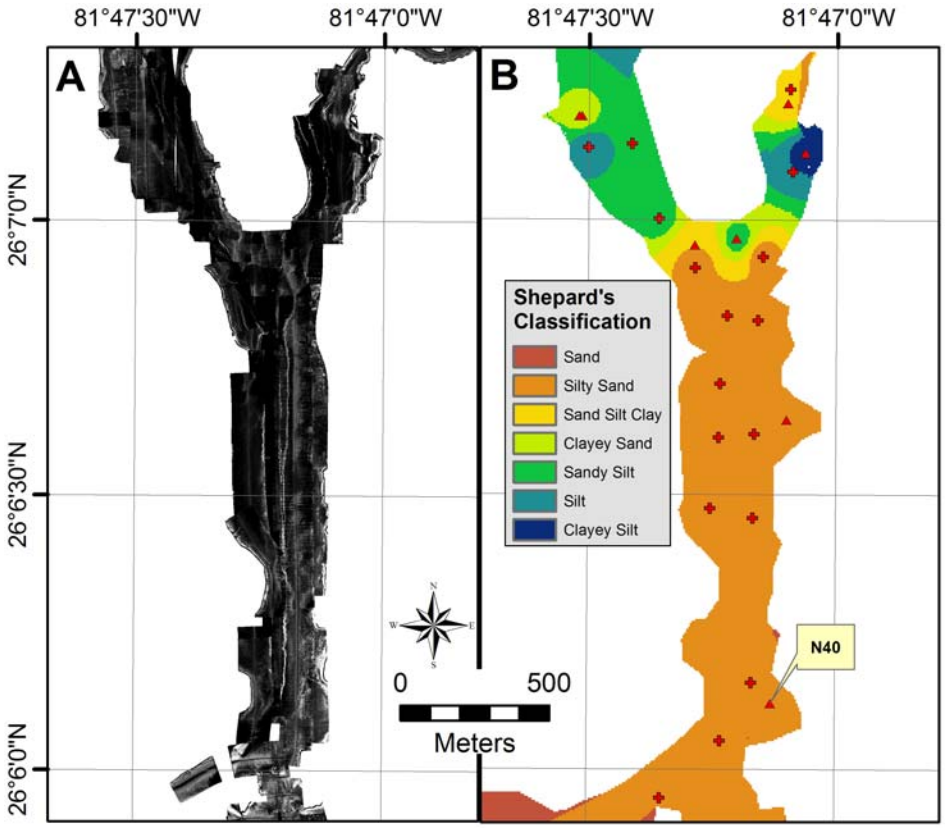

Fig. 7. Southern Naples Bay side scan sonar mosaic (A) and Shepard's classification of grain size distribution of grab samples and core tops (B). Core (triangles) and grab sample (crosses) locations shown with labels for samples discussed in text.

deposition of silty sands using Shepard's classification, but initial observations of grab samples noted the presence of more shell material than samples obtained in northern Naples Bay.

4.1.3 Dollar Bay

The Dollar Bay side scan sonar mosaic (Fig. 8A) is similar to the lower portion of southern Naples Bay, where backscatter intensities and the roughness of the signal is higher. Based on the roughness of the side scan sonar backscatter and personal observations during the survey, gravel-size shell and low-density oyster patches dominate Dollar Bay. The shorelines of Dollar Bay are all natural, with low-density oyster reefs fringing extensive mangrove forests. Low backscatter irregularly marks the edges of the dredged navigational channel that runs from northern Naples Bay to Marco Pass. A few high density oyster reefs are distinguishable in the southwestern-most portion of Dollar Bay.

Like the majority of southern Naples Bay, Dollar Bay grain size distributions (Fig. 8B) are fairly uniform. With two exceptions, Dollar Bay sediments are mostly in the silty sand size range. One exception (core top of N7) is a large cove in the eastern shoreline of the northern half of Dollar Bay where grab samples reveal the sediment fines to sandy silt. The second exception (core top of N36) is the same area where the isolated oyster reefs are found in the side scan sonar data. Here the sediment fines slightly to nearly equal portions of sand, silt, and clay in one sample.

4.2 Subsurface Stratigraphy

A total of 24 vibracores were collected throughout the NBES. Trends in grain size distribution and porosity for each province of the NBES, as well as a few specific core results, are described below. The depths of penetration for each core vary from ~25 cm to ~285cm, with the base of most of the cores being a highly consolidated, very fine to fine sand. The VWM and percent content of individual grain sizes for each sample was graphed versus its depth (in

centimeters) within a particular core. Figures pertaining to the individual grain size distribution of cores do not display the data for grain sizes coarser than medium sand because the coarser sands do not appear to vary significantly through the cores. However, all grain size data for each core can be found in Appendices C and D. Locations for cores discussed below are labeled in the Shepard's classification figure for core's respective NBES province.

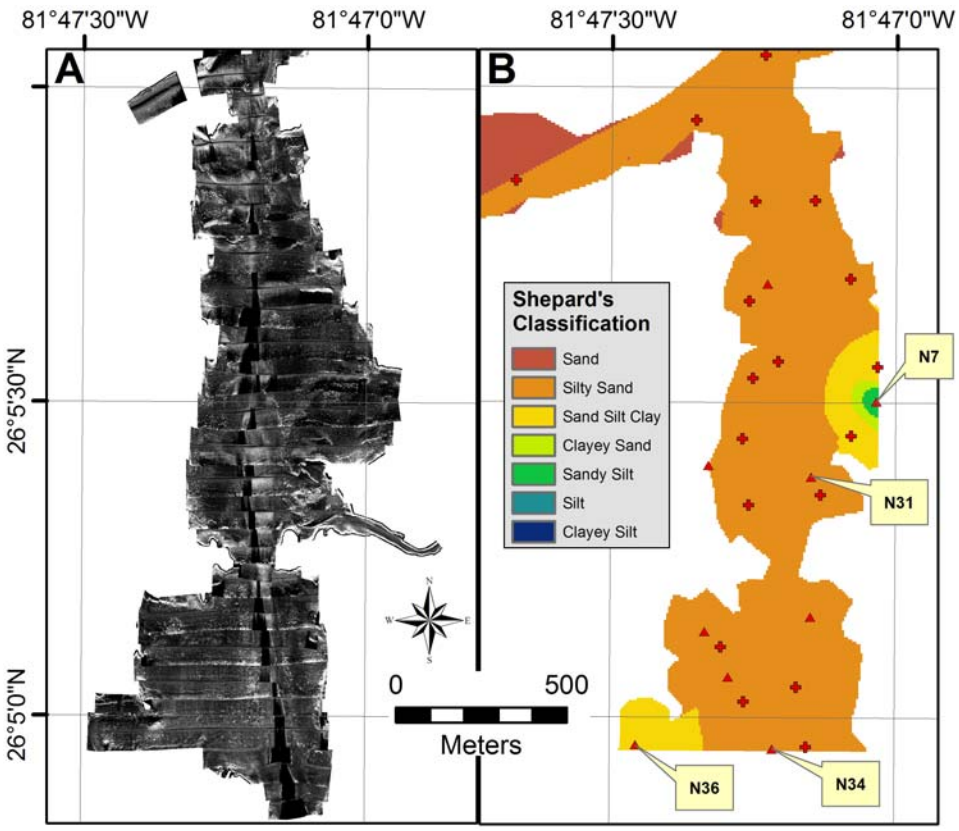

Fig. 8. Dollar Bay side scan sonar mosaic (A) and Shepard's classification of grain size distribution of grab samples and core tops (B). Core (triangles) and grab sample (crosses) locations shown with labels for samples discussed in text.

4.2.1 Northern Naples Bay

For northern Naples Bay, results show a general upward fining (decrease in grain size) of sediments in each core of the VWM profiles. The greatest change in grain size occurs in core N15-1 (Fig. 9A), which is located in the extensive sandy silt region of lower northern Naples Bay. Within any particular core exists layers of finer and coarser sediment, varying in thickness (2-20cm), frequency, and magnitude of grain size change (10-100 μm). The apparent frequency and thickness of these layers can vary when grain size sampling intervals are increased. Several VWM profiles of northern Naples Bay show the occurrence of a sharp upward decrease in mean grain size at some depth (~80 cm in core N15-1, Fig. 9A), followed by a gradual upward fining extending to the top of the core. As expected, porosity profiles for each core correlate well with the VWM graphs, showing a nearly inversely proportional relationship between the two data sets. Coarser and older, consolidated sediments are typified by a lower porosity, whereas finer and younger, unconsolidated sediments generally have higher porosity. Similar to the VWM graphs, the porosity graphs show a general upward increase in porosity, signifying finer, underconsolidated sediment.

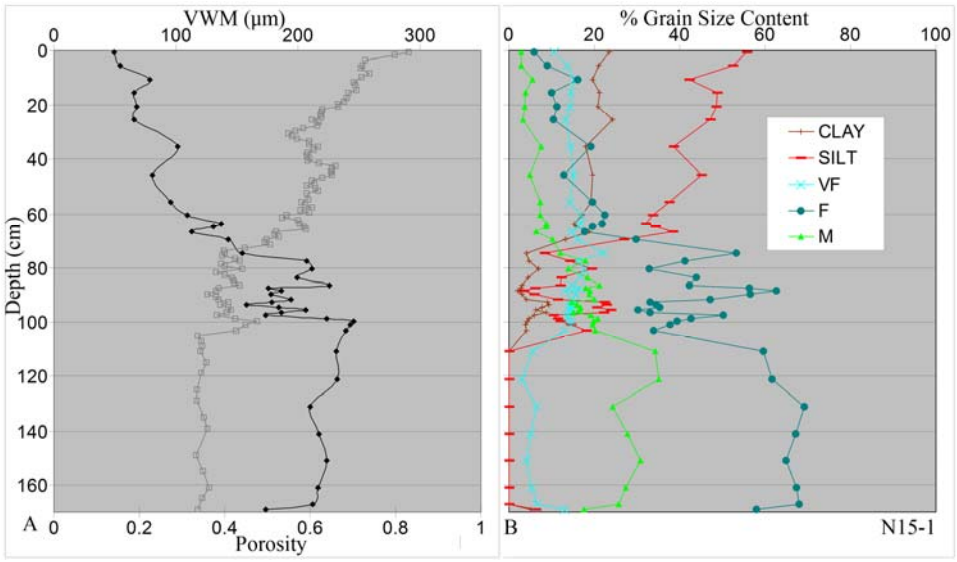

Fig. 9. VWM (black diamonds) and porosity (grey squares) profiles (A) and percent content of individual grain size classifications (B) for core N15-1.

The vertical distribution of individual grain size classifications (e.g. silt, very fine sand, fine sand, etc.) explain that the upward fining of the VWM is due to increases in silt content and corresponding decreases in the fine and medium sand fractions (Fig. 9B). Overall, silt contents increase upward on the order of 20-30% in most cores, with some thin intervals increasing as much as ~50%. Combined fine and medium sand fractions decrease upward in a similar fashion. The relationship between the fine sand and medium sand, as well as between silt and clay fractions, is direct, but not always proportional. The very fine sand fractions generally vary only slightly throughout the core. The inverse covariation of the silt and sand fractions are also evident in the layers of coarse and fine sediment seen in the VWM graphs.

4.2.2 Southern Naples Bay

In southern Naples Bay, core N40 shows a fining upwards sequence in the VWM profiles, similar to that of northern Naples Bay. Core N40 (Fig. 10A), located adjacent to the head of Gordon Pass along the eastern shoreline of southern Naples Bay, demonstrates a

comparable sharp upward decrease in mean grain size at ~60 cm (Fig. 10A), followed by a moderate upward fining. Layers of finer and coarser sediment exist within the general fining trend, however they are less frequent, less thick (1-5 cm), and are smaller in magnitude (< 50 µm change). Porosity profiles display an inversely proportional relation to the VWM profiles for most southern Naples Bay cores.

Individual grain size classification profiles of southern Naples Bay cores display fluctuations like those of northern Naples Bay. Silt and clay contents vary inversely with the fine and medium sand fractions. Clay content of southern Naples Bay cores appears to play slightly larger roles in the fining upward sequence of VWM profiles compared to northern Naples Bay cores. Silt contents generally increase by 10-20% through the entire core, and individual layers of increasing silt content are less frequent and have smaller deviations from the general trend. With the exception of core N40 (Fig. 10B), the very fine sand classification fluctuates only slightly throughout other southern Naples Bay cores.

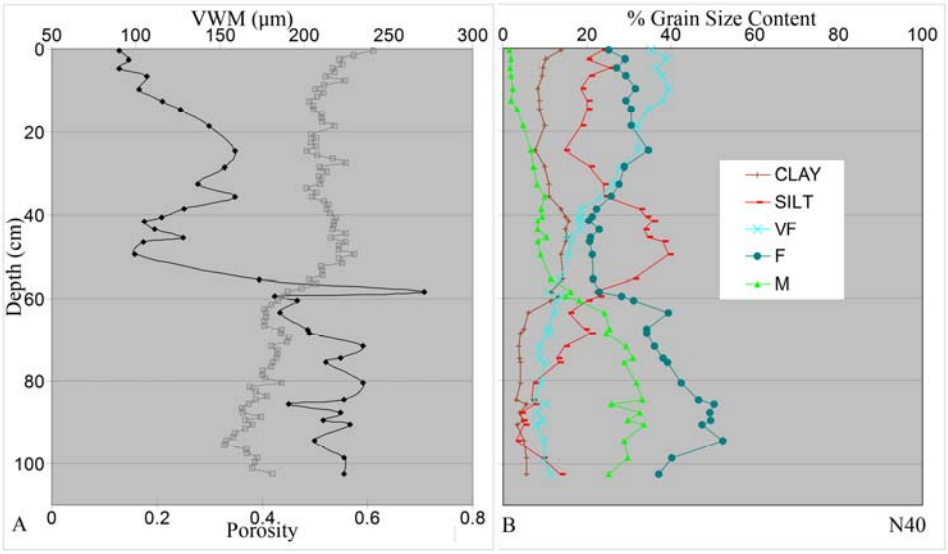

Fig. 10. VWM (black diamonds) and porosity (grey squares) profile (A) and percent content of individual grain size classifications (B) for core N40.

4.2.3 Dollar Bay

Roughly 1.4 km south of its connection to southern Naples Bay, Dollar Bay constricts to ~100 m wide. North of the constriction, four Dollar Bay cores exhibited a general coarsening upwards trend (Fig. 11A), while five cores south of the constriction fine upwards (Fig. 12A). Layers of finer and coarser sediment still exist, however they tend to return to an overall fining or coarsening trend. The tendency of these layers to be more frequent, thicker, and greater in magnitude than layers seen in Naples Bay appear to be an artifact of differences in sampling intervals between grain size and porosity analyses (Figs. 11A and 12A). Porosity profiles correlate to the VWM profiles of the majority of Dollar Bay cores, displaying an inverse relationship between the profiles.

For the individual grain size classifications, Dollar Bay can also be separated into two components at the constriction of the bay. In the northern sector, where there is a general coarsening upwards, the covariation between silts and fine to medium sands is similar to the cores of southern Naples Bay (Fig. 11B). Below the constriction, the relative influence of medium sand decreases, but very fine and fine sands diverge much more than the cores previously discussed (Fig. 12B). Silt contents, overall and within layers, change very little (< 20%), with corresponding decreases in fine sands, while influences of clay and very fine sand contents fluctuate throughout the core.

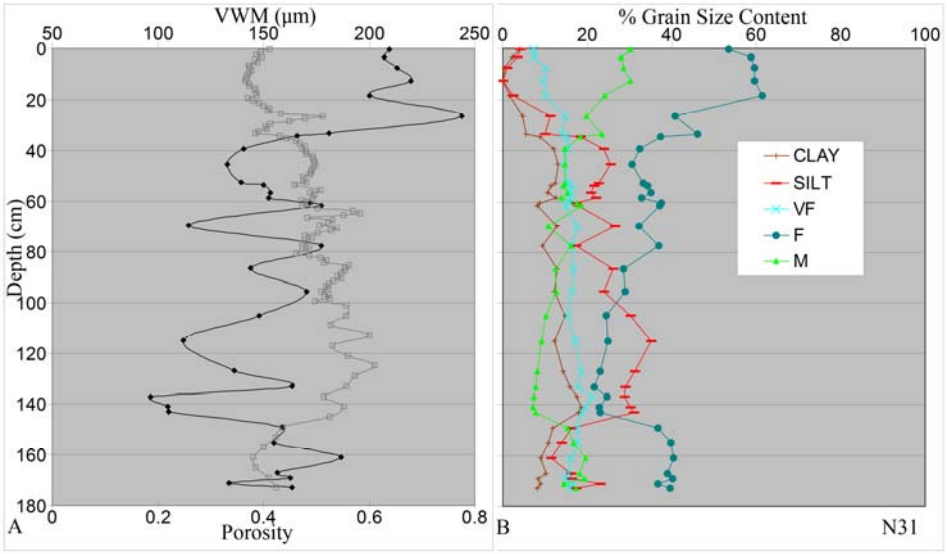

Fig. 11. VWM (black diamonds) and porosity (grey squares) profile (A) and percent content of individual grain size classifications (B) for core N31.

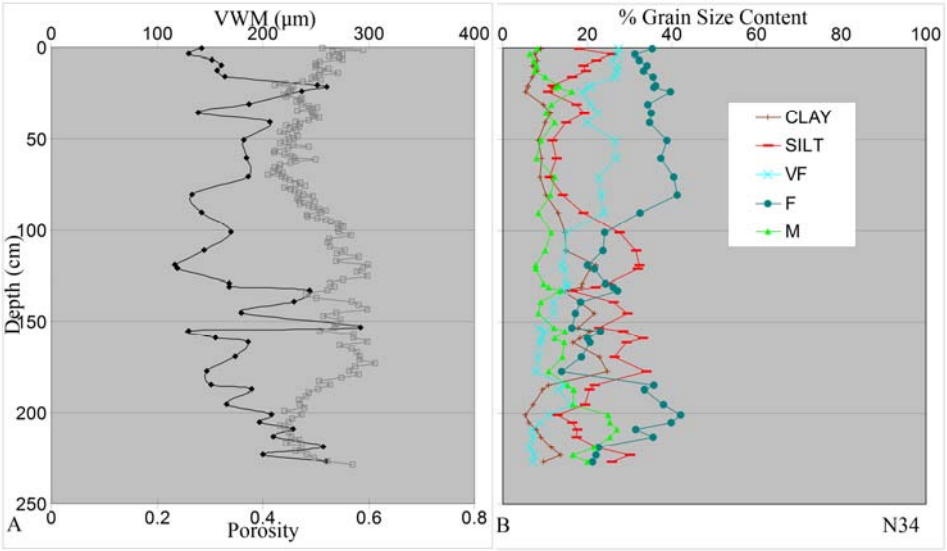

Fig. 12. VWM (black diamonds) and porosity (grey squares) profile (A) and percent content of individual grain size classifications (B) for core N34.

5. DISCUSSION

Linkages between the spatial and temporal grain size distributions to the numerous anthropogenic alterations imposed on the system and surrounding areas are important to understand when considering possible restoration efforts in water quality and ecology of the NBES. These alterations, in addition to natural sedimentary processes, are discussed below based on distribution patterns seen in the surface and subsurface data. While both naturally- and anthropogenically-induced sedimentation processes are simultaneously acting on the system, anthropogenic influences appear to dominate Naples Bay, while natural processes dominate in Dollar Bay.

5.1 Naturally Induced Sedimentation

The general distribution of surficial grain size in northern Naples Bay (Fig. 5A) and the confluence of Haldeman Creek with southern Naples Bay (Fig. 7A) illustrate a transition from coarser (sand, silt, clay) to finer (silt) sediment away from their respective fluvial sources. This sedimentation pattern is expected where fluvial systems flow into an estuary (Dalrymple et al. 1992). The magnitude of this transition between northern and southern Naples Bay is likely proportional to their associated fluvial inputs, where northern Naples Bay receives a greater input of freshwater from extensive watershed canalization compared to southern Naples Bay. Sediment distributions in Dollar Bay show a dominant sand, silt, clay substrate; however the side scan sonar mosaic displays a rougher bottom texture, indicating coarser material, mostly coarse sand and shell hash. Because Dollar Bay is hydraulically separated from Naples Bay (Simpson et al. 1979), its benthic substrate is suggestive of the natural onshore progression of marine sands (Parkinson 1991) as bedload through stronger flood tides (Simpson et al. 1979; Scholl 1964) and barrier overwash. Onshore progression of marine sands (Dalrymple et al. 1992) can also explain the sand, silt, clay-dominated southern Naples Bay and its encroachment into lower Haldeman

Creek and northern Naples Bay. The coarse sediment found at the base of most Naples Bay vibracores represents pre-human modification, thus correlates to modern Dollar Bay substrates.

5.2 Anthropogenically Induced Sedimentation

Sedimentation influenced by urbanization is segregated by each modification to the system: dredging and propeller scars, mangrove removal and replacement, and canalization of the watershed and bay. The grain size profiles seen in the vibracores provide excellent records of pre- and post-anthropogenic conditions.

5.2.1 Dredging and Propeller Scars

Aside from the early Native American canal, the first known dredged waterway connected northern Naples Bay to Gordon Pass and Marco Island in 1930 (Schmid et al. 2005). Since that time, the channel has undergone several maintenance dredging projects, and other channels have been dredged to service the multitude of canals and docks along the bay perimeter. The shallow nature of the system outside the dredged channels (<2 m average) causes a large number of boat groundings in the bay. Groundings often leave behind noticeable propeller scars, evident throughout the side scan sonar mosaic (Fig. 6). Channel dredging and propeller scars are similar in resuspending sediment, particularly silts and clays. Periods of high boat traffic and during maintenance dredging of the navigational channels could explain some of the erratic layers of silt seen in the core profiles. While dredging is obviously a larger scale alteration, numerous propeller scars can act not only to resuspend fine sediment, but also destroy oyster and SAV habitat. Destruction of these habitats decreases bottom roughness and friction, allowing finer sediment to disperse further into the bay.

5.2.2 Mangrove Removal and Replacement

Dredge-and-fill projects effectively dredged new canals through mangrove systems and deposited the material on adjacent marshes, increasing elevations upon which residential and

commercial buildings were erected. The newly developed shorelines were stabilized with concrete seawalls and rip rap bulkheads. The removal and replacement of the mangrove forests had instantaneous and long term impacts on the sediment distributions throughout northern Naples Bay and parts of southern Naples Bay, causing the fining upward sequences seen in the VWM profiles of the vibracores. It has been shown by Wolanski (1995) and Furukawa et al. (1997) that mangrove systems are excellent traps for sediment, in particular clay and fine silt, but when the mangrove substrates were dredged, fine sediments were resuspended and dispersed. Vertical profiles of the VWM and individual grain size classifications (i.e. silt content) show the silty depositional layers created after these sediments were resuspended and dispersed. Some cores show a larger frequency, thickness, and variation in magnitude of grain size change in these layers, indicating a closer proximity to the development project. On longer time scales, the replacement of the mangrove shorelines with artificial (concrete and rip rap) shorelines allowed the eroding silts from the fill to bypass the trapping mechanisms of the shoreline and escape to the interior of the bay. The removal of the mangrove system of creeks and tidal flatlands has also decreased the influence of the ebb tide (Augustinus 1995), permitting the deposition of silts within the bay, as opposed to being flushed out of the system with stronger ebb tides that existed when the mangrove swamps were present. Conversely, the relatively constant grain size profiles in Dollar Bay demonstrate the bay's natural sedimentation distribution. Thin layers of fine sediment found in these cores suggest short, ephemeral episodes of fine grained sedimentation. These fine sedimentary layers may have been deposited either as a result of dredging projects within Dollar Bay or periods of high freshwater discharge during flood events.

5.2.3 Canalization of the Watershed and Bay

The push for sustainable agricultural and residential land in South Florida led to rapid drainage of the Everglades and surrounding areas in the early 20th century (Blake 1980).

Drainage came in the form of extensive networks of canals through marsh and swamp lands, which channelized the natural sheet flow of surface waters to the Gulf of Mexico and Atlantic Ocean basins. Comparable canalization and drainage endeavors took place in the Naples area, most notably the construction of the GGC, which expanded the NBW over ten-fold and connects with the Gordon River (SFWMD 2007). Construction of the canals was similar to the dredge-and-fill along the shorelines of Naples Bay, creating deep, artificially bulkheaded canals and elevating the adjacent land from the fill. The fining upward sequences in the cores demonstrate an increased runoff and freshwater discharge (20-40 times greater, Simpson et al. 1979) through the fluvial systems emptying into Naples Bay. The increased discharge of freshwater and sediment has exacerbated the natural fluvial depositional patterns in northern Naples Bay relative to the Haldeman Creek area. Haldeman Creek has also been modified through canalization, but to a much less extent and it still retains portions of its natural mangrove-forested shoreline. Increased fluvial discharge during the wet season can also account for, or intensify, the layers of fine sediment seen in the cores, in addition to the impacts created by channel dredging and dredge-and-fill (discussed above). Residential canals, created through dredge-and-fill, connect to the bay and are responsible for the localized areas (NB05 and NB11) of finer surficial sediment deposits found in northern Naples Bay (Fig. 5B). The localized fining stems from the gradual flushing of the quiescent canals.

5.3 Comparison of the NBES to Other Modified Systems

Few published studies of estuarine systems around the world report extensively modified conditions with respect to the three major alterations seen in the NBES. Most studies only report one or two of these modifications and are typically discussed in terms of the impacts of industrial wastewater or deforestation in the upstream reaches on the receiving basin or estuary (Goff 1997; Tilley and Brown 1998; Chague-Goff et al. 2000; Ujevic et al. 2000; Ahn et al. 2006;

Jayappa et al. 2006). However, published studies of two estuaries located in South Florida, have shown adverse effects to similar alterations occurring within their watersheds and along estuarine perimeters (Barnes 2005; Browder et al. 2005; Caccia and Boyer 2005). The Caloosahatchee River estuary, along the Gulf Coast, has experienced the three major alterations, but differs from the NBES as it is a delta-front estuary, where the river connects almost directly with the Gulf of Mexico without a protected bay system. Biscayne Bay, on the Atlantic Coast, is more closely related to the NBES as a bar-built estuary also suffering the effects of canalization, dredging, and artificial shoreline development; as well as being separated into three components, based on their degree of alterations, exhibiting a transition from highly urbanized to the north to nearly natural in the south (Caccia and Boyer 2005). Numerous parameters were analyzed to determine the effects of the alterations on these systems, including nutrient loadings, grain size distribution, water clarity and turbidity, biological diversity and abundance, salinity, and metal contamination (Barnes 2005; Browder et al. 2005; Caccia and Boyer 2005).

Dredging for construction of navigational channels and shoreline dredge-and-fill development in both systems have resulted in increased water turbidity (Barnes 2005; Browder et al. 2005). The decrease in water clarity led to diminished numbers of benthic biota, most notably seagrass beds by reducing light penetration to the seabed and rapid burial (Orpin et al. 2004). Preservation of seagrass communities is important for the support of other biota, as well as trapping of sediments and excessive nutrients that would otherwise accelerate eutrophication. However, the seagrasses can only cope with a certain level of turbidity and excessive nutrients before they are overwhelmed. Propeller scarring from boat traffic was found to be the dominant factor in water turbidity and benthic habitat destruction in Central Bay of Biscayne Bay (Browder et al. 2005). Birdwell and Thibodeaux (2007) describe another problem of

maintenance dredging as resuspending contaminated sediment, releasing those contaminates through dissolution allowing further transport into the system and into aquatic organisms.

Loss of mangroves for the Caloosahatchee River estuary and Biscayne Bay occurred through removal during shoreline development (Barnes 2005), but some loss is attributed to diverted freshwater flow through canals (Browder et al. 2005). Mangroves have been shown to be very important for the ecological health of an estuarine system. They have demonstrated a high efficiency towards trapping fine-grained sediment through a variety of mechanisms (Wolanski 1995; Furukawa et al. 1997). Mangroves are also highly tolerant of increased pollution in the sediment, often incorporating these contaminants into their root system; however, their leaf litter does not contain these contaminants, thus the pollution is not recycled back to the sediment column (Perry 2006 and references therein). Barnes (2005) noted increases in nutrients and reduced flushing of the system due to the absence of mangrove forests. The removal and replacement of mangrove shorelines is extensive in the northern component of Biscayne Bay, resulting in increased siltation and finer-grained substrates (Caccia and Boyer 2005). On the other hand, Lee and Shih (2004) argue the overpopulation of mangrove forests results in salt marsh loss by habitat encroachment and enhanced flooding by impeding water flow.

Canalization of the watersheds and estuary perimeter occur in both systems, each of which connects to Lake Okeechobee. Urbanization, resulting in increased impervious surfaces (roofs and paved roads; Hayward et al. 2004), and enhanced agricultural expansion induces further freshwater runoff, increased sediment, pollutants, and nutrients. Dierberg (1991) observes a ‘concentration’ effect associated with urbanized catchments and a ‘dilution’ effect in natural areas of runoff solutes during peak discharge of freshwater flow. Increases in fine sediment deposition owing to amplified freshwater input by channelized flow through canals

have also shown to infill a receiving basin (Ahn et al. 2006), causing more maintenance dredging projects and degrading the basin's ability to accept more sediment by lessening the accommodation space. Biological communities in Biscayne Bay and the Caloosahatchee River estuary have been affected by canalization via the smothering of benthic biota and habitats by increased sediment supply and increased nutrients causing eutrophication and fish kills (Barnes 2005; Browder et al. 2005).

6. CONCLUSIONS

Evidence from surface and subsurface grain size data suggest the entire NBES has been simultaneously impacted by anthropogenic and natural influences. Natural sedimentation processes still occur, but have been both enhanced and degraded in various aspects. Overall upward fining environments, noticeable throughout Naples Bay, are driven by anthropogenic alterations to the system. A single alteration cannot be responsible for the erratic layers or overall fining, rather each alteration acts to intensify the other. However, their degree of influence can be somewhat decoupled for each province of the NBES. The highly modified northern Naples Bay exhibits higher gradients in the fining upward sequences and individual sediment layers, indicating its proximity to and degree of human impact. Southern Naples Bay shows similar trends and layers of finer sediment, but to a lesser extent; owing to less developed shorelines, fluvial input, and closer proximity to marine influences from Gordon Pass. Dollar Bay sediment distributions have changed little over time; a result of completely undeveloped shorelines and quick recovery after dredging or storm events. Changes in grain size distributions effected by anthropogenic impacts seen in the NBES correlate well to the ecological responses described by investigations in other South Florida estuaries, such as Biscayne Bay and the Caloosahatchee River estuary. Returning the NBES to natural conditions is likely not possible given the abundance and severity of alterations to the system. Improving water management practices and emplacing smaller wetlands within the watershed (Tilley and Brown 1998) are likely the most economical and viable options for the NBES.

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APPENDIX A

Locations, percent compositions of the sand, silt, and clay fractions, and weighted values generated from Shepard's classification scheme used for interpolation in ESRI ArcGIS for each grab sample and core top sample (except cores MANG1, N1, and N15). Note Station ID's for grab samples are designated by two letters and two numbers (i.e. DB-52) and cores only by an 'N' followed by a number (i.e. N2).

Shepard's Classification	Weighted Value
Sand	1
Silty Sand	2
Sand Silt Clay	3
Clayey Sand	4
Sandy Silt	5
Silt	6
Clayey Silt	7
Sandy Clay	8
Silty Clay	9
Clay	10

Station ID	Latitude^{o}	Longitude^{o}	% Sand	% Silt	% Clay	Weighted Value
DB-52	26.0970	-81.7875	99.8889	0.1000	0.0110	1
DB-53	26.0970	-81.7857	90.3427	8.9456	0.7117	1
DB-54	26.0949	-81.7847	79.1957	19.3116	1.4927	1
DB-55	26.0944	-81.7876	62.1315	35.2350	2.6335	2
DB-56	26.0928	-81.7868	88.3468	10.4211	1.2321	1
DB-56A	26.0923	-81.7875	76.9346	21.2588	1.8066	1
DB-57	26.0926	-81.7839	66.6159	30.4925	2.5813	2
DB-58	26.0908	-81.7846	69.4379	27.7704	2.1861	2
DB-59	26.0907	-81.7878	77.9682	19.6727	1.8699	1
DB-60	26.0890	-81.7876	57.3571	39.1311	3.5118	2
DB-61	26.0892	-81.7855	94.7245	4.6476	0.6278	1
DB-62	26.0852	-81.7884	49.7368	47.4493	2.8138	2
DB-64	26.0837	-81.7878	58.3474	38.3139	3.2908	2

DB-65	26.0841	-81.7862	95.8844	3.5508	0.5648	1
DB-66	26.0826	-81.7859	92.9363	6.1415	0.9222	1
GP-68	26.0991	-81.7892	91.4991	5.9399	0.7338	1
GP-69	26.0975	-81.7945	94.7588	4.6730	0.5683	1
GP-70	26.0951	-81.7990	94.2005	5.0598	0.7397	1
GP-71	26.0928	-81.7984	95.2469	4.0972	0.6560	1
GR-67	26.1431	-81.7867	62.5231	35.3758	2.1011	2
GR-68	26.1511	-81.7860	92.1786	7.0367	0.7847	1
HC-36	26.1181	-81.7848	8.3287	86.9457	4.7256	6
HC-37	26.1206	-81.7849	73.8003	24.2753	1.9244	2
HC-38	26.1155	-81.7858	76.7677	21.1254	2.1069	1
NB-01	26.1361	-81.7906	56.1527	40.5123	3.3349	2
NB-02	26.1361	-81.7883	50.8495	45.5038	3.3847	2
NB-03	26.1348	-81.7916	80.8617	17.4041	1.7342	1
NB-05	26.1348	-81.7884	37.6486	59.3883	2.9632	5
NB-06	26.1329	-81.7918	64.0790	32.0093	3.9117	2
NB-08	26.1330	-81.7889	75.6224	21.7455	2.6321	1
NB-10	26.1313	-81.7908	91.4546	7.6559	0.8895	1
NB-11	26.1313	-81.7887	18.6652	75.9973	5.3376	6
NB-12	26.1299	-81.7940	61.4800	34.9943	3.5257	2
NB-14	26.1300	-81.7910	17.3908	76.6597	5.9495	6
NB-15	26.1300	-81.7894	72.2109	24.8437	2.9454	2
NB-16	26.1299	-81.7876	78.2658	19.9312	1.8030	1
NB-18	26.1284	-81.7894	67.3307	29.3822	3.2871	2
NB-19	26.1285	-81.7878	68.5888	28.3225	3.0887	2
NB-23	26.1241	-81.7925	18.2752	76.4133	5.3115	6
NB-24	26.1240	-81.7894	11.6136	84.5063	3.8801	6
NB-25	26.1221	-81.7927	30.7069	64.2709	4.8278	5
NB-27	26.1224	-81.7901	17.6994	77.7008	4.5998	6
NB-30	26.1189	-81.7917	14.5188	81.7890	3.6921	6
NB-31	26.1190	-81.7902	21.8752	72.8046	5.2779	5
NB-34	26.1167	-81.7893	39.0515	57.4903	3.4582	5
NB-35	26.1152	-81.7881	88.7030	9.2264	0.8690	1
NB-39	26.1138	-81.7870	84.5952	13.7778	1.1552	1
NB-40	26.1136	-81.7860	84.8245	14.1101	1.0654	1
NB-41	26.1117	-81.7872	70.6796	26.8898	2.4306	2

NB-43	26.1101	-81.7873	62.5407	33.8419	3.6174	2
NB-44	26.1102	-81.7861	58.9157	37.7317	3.1949	2
NB-45	26.1079	-81.7875	64.3830	32.9546	2.6625	2
NB-46	26.1076	-81.7861	80.5819	17.2442	1.4919	1
NB-49	26.1026	-81.7861	84.0176	14.7917	1.1907	1
NB-50	26.1009	-81.7872	96.0632	3.3718	0.4849	1
RC-66	26.1414	-81.7861	87.9836	10.9471	1.0693	1
N2	26.1202	-81.7850	52.7430	39.0890	8.1680	2
N3-1	26.1465	-81.7863	88.8810	5.9380	5.1810	1
N6	26.0856	-81.7889	72.2680	20.7590	6.9730	2
N7	26.0917	-81.7839	30.8680	53.8030	15.3290	5
N12	26.1161	-81.7867	24.4720	59.7340	15.7940	5
N13	26.1187	-81.7844	6.8730	68.1470	24.9800	7
N15-1	26.1198	-81.7919	20.6930	55.7680	23.5390	3
N17	26.1302	-81.7929	70.0090	21.7720	8.2190	2
N19	26.1327	-81.7902	53.8410	31.6260	14.5330	2
N20	26.1360	-81.7913	34.8990	50.1900	14.9110	5
N21	26.1424	-81.7874	36.9860	43.3330	19.6810	5
N30	26.0948	-81.7871	76.2490	15.0280	8.7230	1
N31	26.0897	-81.7858	91.8070	4.1390	4.0540	1
N32	26.0860	-81.7858	66.1250	22.8060	11.0690	2
N33	26.0844	-81.7882	44.2080	40.0230	15.7690	2
N34	26.0825	-81.7869	73.0850	17.8650	9.0500	2
N36	26.0826	-81.7909	22.8580	45.3080	31.8340	3
N37	26.1279	-81.7891	66.8780	21.3680	11.7540	2
N39	26.1159	-81.7881	72.7680	15.5630	11.6690	2
N40	26.1020	-81.7855	62.4410	23.7270	13.8320	2
N41	26.1106	-81.7850	87.6430	8.2390	4.1180	1

APPENDIX B

Intervals, interval midpoints, and porosity values for each sampled core interval.

Core MANG1 Latitude 26.0900º Longitude -81.7888º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.7296	33-34	33.5	0.5456
1-2	1.5	0.5798	34-35	34.5	0.6208
2-3	2.5	0.5566	35-36	35.5	0.6234
3-4	3.5	0.5266	36-37	36.5	0.6375
4-5	4.5	0.7161	37-38	37.5	0.5966
5-6	5.5	0.4756	38-39	38.5	0.6161
6-7	6.5	0.4697	39-40	39.5	0.6725
7-8	7.5	0.7122	40-41	40.5	0.5265
8-9	8.5	0.7768	41-42	41.5	0.5990
9-10	9.5	0.6461	42-43	42.5	0.4566
10-11	10.5	0.8188	43-44	43.5	0.4419
11-12	11.5	0.6886	44-45	44.5	0.6344
12-13	12.5	0.8665	45-46	45.5	0.4698
13-14	13.5	0.6439	46-47	46.5	0.5056
14-15	14.5	0.7231	47-48	47.5	0.4486
15-16	15.5	0.8137	48-49	48.5	0.4102
16-17	16.5	0.8100			
17-18	17.5	0.8213			
18-19	18.5	0.7731			
19-20	19.5	0.8178			
20-21	20.5	0.6288			
21-22	21.5	0.7117			
22-23	22.5	0.6808			
23-24	23.5	0.7059			
24-25	24.5	0.6940			
25-26	25.5	0.6954			
26-27	26.5	0.5843			
27-28	27.5	0.6746			
28-29	28.5	0.6166			
29-30	29.5	0.6513			
30-31	30.5	0.5814			
31-32	31.5	0.6771			
32-33	32.5	0.6135			

Core N1 Latitude 26.1419º Longitude -81.7835º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.3804	37-38	37.5	0.4602
1-2	1.5	0.4014	38-39	38.5	0.4435
2-3	2.5	0.3898	39-40	39.5	0.4446
3-4	3.5	0.4053	40-41	40.5	0.3850
4-5	4.5	0.4480	41-42	41.5	0.3983
5-6	5.5	0.4273	42-43	42.5	0.3994
6-7	6.5	0.4281	43-44	43.5	0.4109
7-8	7.5	0.4083	44-45	44.5	0.4527
8-9	8.5	0.4207	45-46	45.5	0.4050
9-10	9.5	0.4119	46-47	46.5	0.3836
10-11	10.5	0.4148	47-48	47.5	0.3843
11-12	11.5	0.4039	48-49	48.5	0.3957
12-13	12.5	0.4039	49-50	49.5	0.4449
13-14	13.5	0.3997	50-51	50.5	0.3744
14-15	14.5	0.3975	51-52	51.5	0.3771
15-16	15.5	0.3838	52-53	52.5	0.4040
16-17	16.5	0.3839	53-54	53.5	0.4804
17-18	17.5	0.4222	54-55	54.5	0.4464
18-19	18.5	0.4224	55-56	55.5	0.4385
19-20	19.5	0.3911	56-57	56.5	0.4578
20-21	20.5	0.3854	57-58	57.5	0.4896
21-22	21.5	0.3705	58-59	58.5	0.4574
22-23	22.5	0.3826	59-60	59.5	0.3793
23-24	23.5	0.3906	60-61	60.5	0.3600
24-25	24.5	0.3888	61-62	61.5	0.3257
25-26	25.5	0.3786	62-63	62.5	0.3570
26-27	26.5	0.3795	63-64	63.5	0.3493
27-28	27.5	0.3804	64-65	64.5	0.3678
28-29	28.5	0.3945	65-66	65.5	0.3738
29-30	29.5	0.3764	66-67	66.5	0.3565
30-31	30.5	0.4030			
31-32	31.5	0.3998			
32-33	32.5	0.3884			
33-34	33.5	0.3687			
34-35	34.5	0.4527			
35-36	35.5	0.4267			
36-37	36.5	0.3390			

Core N2 Latitude 26.1202º Longitude -81.7850º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.6692	37-38	37.5	0.3294
1-2	1.5	0.6313	38-39	38.5	0.3361
2-3	2.5	0.6532	39-40	39.5	0.3184
3-4	3.5	0.6478	40-41	40.5	0.3241
4-5	4.5	0.6198	41-42	41.5	0.3264
5-6	5.5	0.5723	42-43	42.5	0.3182
6-7	6.5	0.5829	43-44	43.5	0.3237
7-8	7.5	0.5996	44-45	44.5	0.3184
8-9	8.5	0.4712	45-46	45.5	0.3014
9-10	9.5	0.4584	46-47	46.5	0.3066
10-11	10.5	0.4933	47-48	47.5	0.3016
11-12	11.5	0.4967	48-49	48.5	0.3098
12-13	12.5	0.4945	49-50	49.5	0.3261
13-14	13.5	0.4216	50-51	50.5	0.3176
14-15	14.5	0.3998	51-52	51.5	0.3224
15-16	15.5	0.4698	52-53	52.5	0.3268
16-17	16.5	0.6648	53-54	53.5	0.3213
17-18	17.5	0.6474	54-55	54.5	0.3271
18-19	18.5	0.5904	55-56	55.5	0.3282
19-20	19.5	0.5594	56-57	56.5	0.3210
20-21	20.5	0.5578	57-58	57.5	0.3202
21-22	21.5	0.5683	58-59	58.5	0.3285
22-23	22.5	0.6098	59-60	59.5	0.3257
23-24	23.5	0.5738	60-61	60.5	0.3217
24-25	24.5	0.5809	61-62	61.5	0.3266
25-26	25.5	0.5553	62-63	62.5	0.3261
26-27	26.5	0.6124	63-64	63.5	0.3167
27-28	27.5	0.5591	64-65	64.5	0.3259
28-29	28.5	0.5428	65-66	65.5	0.3222
29-30	29.5	0.4888	66-67	66.5	0.3246
30-31	30.5	0.4087	67-68	67.5	0.3203
31-32	31.5	0.3752	68-69	68.5	0.3221
32-33	32.5	0.3585	69-70	69.5	0.3203
33-34	33.5	0.3489	70-71	70.5	0.3191
34-35	34.5	0.3502	71-72	71.5	0.3048
35-36	35.5	0.3724	72-73	72.5	0.3126
36-37	36.5	0.3282	73-74	73.5	0.3234

74-75	74.5	0.3157
75-76	75.5	0.3135
76-77	76.5	0.3227
77-78	77.5	0.3163
78-79	78.5	0.3469
79-80	79.5	0.3267
80-81	80.5	0.3345
81-82	81.5	0.3254
82-83	82.5	0.3285
83-84	83.5	0.3331
84-85	84.5	0.3289
85-86	85.5	0.3415
86-87	86.5	0.3219
87-88	87.5	0.3471
88-89	88.5	0.3444
89-90	89.5	0.3514
90-91	90.5	0.3583
91-92	91.5	0.3624
92-93	92.5	0.3728
93-94	93.5	0.4448
94-95	94.5	0.3763
95-96	95.5	0.3711
96-97	96.5	0.3554
97-98	97.5	0.3520
98-99	98.5	0.3435
99-100	99.5	0.3356
100-102	101	0.3340
102-104	103	0.3161
104-106	105	0.3252
106-108	107	0.3270
108-110	109	0.3268
110-112	111	0.3258
112-114	113	0.3216
114-116	115	0.3262
116-118	117	0.3334
118-120	119	0.3258
120-122	121	0.3294

Core N3-1 Latitude 26.1465º Longitude -81.7863º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.3884	38-39	38.5	0.5232
1-2	1.5	0.3613	39-40	39.5	0.5741
2-3	2.5	0.3560	40-41	40.5	0.6416
3-4	3.5	0.3503	41-42	41.5	0.6146
4-5	4.5	0.3568	42-43	42.5	0.5918
5-6	5.5	0.3635	43-44	43.5	0.4876
6-7	6.5	0.3539	44-45	44.5	0.5533
7-8	7.5	0.3622	45-46	45.5	0.5491
8-9	8.5	0.3505	46-47	46.5	0.4540
9-10	9.5	0.3558	47-48	47.5	0.4000
10-11	10.5	0.3550	48-49	48.5	0.3833
11-12	11.5	0.3519	49-50	49.5	0.3666
12-13	12.5	0.3173	50-51	50.5	0.3750
13-14	13.5	0.3059	51-52	51.5	0.3754
14-15	14.5	0.3097	52-53	52.5	0.3481
15-16	15.5	0.3100	53-54	53.5	0.3194
16-17	16.5	0.3015	54-55	54.5	0.3421
17-18	17.5	0.2993	55-56	55.5	0.3377
18-19	18.5	0.3014	56-57	56.5	0.3567
19-20	19.5	0.3050	57-58	57.5	0.3482
20-21	20.5	0.3105	58-59	58.5	0.3437
21-22	21.5	0.3374	59-60	59.5	0.3260
22-23	22.5	0.3887	60-61	60.5	0.3501
23-24	23.5	0.4013	61-62	61.5	0.3552
24-25	24.5	0.4245	62-63	62.5	0.3666
25-26	25.5	0.4031	63-64	63.5	0.3491
26-27	26.5	0.4189	64-65	64.5	0.3812
27-28	27.5	0.4054	65-66	65.5	0.4232
28-29	28.5	0.4839	66-67	66.5	0.3489
30-31	30.5	0.4877	67-68	67.5	0.3312
31-32	31.5	0.4280	69-70	69.5	0.3156
32-33	32.5	0.3786	71-72	71.5	0.3310
33-34	33.5	0.3596	73-74	73.5	0.3624
34-35	34.5	0.3523	75-76	75.5	0.3734
35-36	35.5	0.3438	77-78	77.5	0.3656
36-37	36.5	0.3202	79-80	79.5	0.3772
37-38	37.5	0.3658	81-82	81.5	0.3632

83-84	83.5	0.3442
85-86	85.5	0.3510
87-88	87.5	0.3738
88-89	88.5	0.3752
89-90	89.5	0.3780
90-91	90.5	0.3851
91-92	91.5	0.4019
92-93	92.5	0.5419
93-94	93.5	0.5784
94-95	94.5	0.6204
95-96	95.5	0.7132
96-97	96.5	0.6771
97-98	97.5	0.5712
98-99	98.5	0.4589
99-100	99.5	0.4539
100-102	101	0.4110
102-104	103	0.3506
106-108	107	0.3428
110-112	111	0.3170
114-116	115	0.3181
118-120	119	0.3197
122-124	123	0.3149
126-128	127	0.3086
130-132	131	0.3233
134-136	135	0.3148
138-140	139	0.3103
140-142	141	0.3349

Core N6 Latitude 26.0856º Longitude -81.7889º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4530	38-39	38.5	0.3612
1-2	1.5	0.4227	39-40	39.5	0.3572
2-3	2.5	0.4070	40-41	40.5	0.3674
3-4	3.5	0.4140	41-42	41.5	0.3541
4-5	4.5	0.4148	42-43	42.5	0.3680
5-6	5.5	0.3966	43-44	43.5	0.3610
6-7	6.5	0.3825	44-45	44.5	0.3602
7-8	7.5	0.3752	45-46	45.5	0.3684
8-9	8.5	0.3954	46-47	46.5	0.3619
9-10	9.5	0.3988	47-48	47.5	0.3716
10-11	10.5	0.4034	48-49	48.5	0.3694
11-12	11.5	0.4164	49-50	49.5	0.3896
12-13	12.5	0.4205	50-51	50.5	0.3758
13-14	13.5	0.4354	51-52	51.5	0.3664
14-15	14.5	0.4269	52-53	52.5	0.3635
15-16	15.5	0.4697	53-54	53.5	0.3585
16-17	16.5	0.4888	54-55	54.5	0.3606
17-18	17.5	0.4592			
18-19	18.5	0.4481			
19-20	19.5	0.4654			
20-21	20.5	0.5454			
21-22	21.5	0.5309			
22-23	22.5	0.5666			
23-24	23.5	0.5598			
24-25	24.5	0.4718			
25-26	25.5	0.4721			
26-27	26.5	0.4612			
27-28	27.5	0.4582			
28-29	28.5	0.4840			
29-30	29.5	0.4534			
30-31	30.5	0.4663			
31-32	31.5	0.5378			
32-33	32.5	0.5383			
33-35	34	0.4392			
35-36	35.5	0.4158			
36-37	36.5	0.3903			
37-38	37.5	0.3669			

Core N7 Latitude 26.0917º Longitude -81.7839º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.5306	47-48	47.5	0.5609
3-4	3.5	0.4539	48-49	48.5	0.5413
4-5	4.5	0.4511	49-50	49.5	0.5271
5-6	5.5	0.4400	50-51	50.5	0.5215
6-7	6.5	0.4566	51-52	51.5	0.5374
7-8	7.5	0.4552	52-53	52.5	0.5398
8-9	8.5	0.4267	53-54	53.5	0.5405
9-10	9.5	0.4975	54-55	54.5	0.5450
10-11	10.5	0.5230	55-56	55.5	0.5189
11-12	11.5	0.5021	56-57	56.5	0.5184
12-13	12.5	0.5205	57-58	57.5	0.5315
13-14	13.5	0.4948	58-59	58.5	0.5154
14-15	14.5	0.5415	59-60	59.5	0.5366
16-17	16.5	0.5033	60-61	60.5	0.4902
17-18	17.5	0.5033	61-62	61.5	0.5720
18-20	19	0.5204	62-63	62.5	0.4873
20-22	21	0.5417	63-64	63.5	0.5087
22-24	23	0.4998	64-65	64.5	0.4741
24-26	25	0.5498	65-66	65.5	0.4973
26-28	27	0.6111	66-67	66.5	0.4574
28-30	29	0.6465	67-68	67.5	0.4451
30-32	31	0.7019	68-69	68.5	0.4772
32-33	32.5	0.6886	69-70	69.5	0.5141
33-34	33.5	0.7459	70-71	70.5	0.4552
34-35	34.5	0.7606	71-72	71.5	0.4411
35-36	35.5	0.8548	72-73	72.5	0.4454
36-37	36.5	0.8523	73-74	73.5	0.4475
37-38	37.5	0.8877	74-75	74.5	0.4299
38-39	38.5	0.7980	75-76	75.5	0.4266
39-40	39.5	0.7305	76-77	76.5	0.4155
40-41	40.5	0.6550	77-78	77.5	0.4274
41-42	41.5	0.6148	78-79	78.5	0.4098
42-43	42.5	0.6222	79-80	79.5	0.4346
43-44	43.5	0.6084	80-81	80.5	0.4259
44-45	44.5	0.5526	81-82	81.5	0.4545
45-46	45.5	0.5542	82-83	82.5	0.4692
46-47	46.5	0.5491	83-84	83.5	0.4568

84-85	84.5	0.4474
85-86	85.5	0.4424
86-87	86.5	0.4704
87-88	87.5	0.4324
88-89	88.5	0.4392
89-90	89.5	0.4214
90-91	90.5	0.4029
91-92	91.5	0.4372
92-93	92.5	0.4276
93-94	93.5	0.4351
94-95	94.5	0.4352
95-96	95.5	0.4206
96-97	96.5	0.4018
97-98	97.5	0.3770
98-99	98.5	0.4049
99-100	99.5	0.3715
100-102	101	0.3793
104-106	105	0.3601
110-112	111	0.3393
116-118	117	0.3405
122-124	123	0.3576
128-130	129	0.3618
134-136	135	0.3562
140-142	141	0.3795
146-148	147	0.3451
152-154	153	0.3342
156-158	157	0.3614
158-160	159	0.3928
164-166	165	0.3614
170-172	171	0.4097
176-178	177	0.3610
180-182	181	0.3649

Core N12 Latitude 26.1161º Longitude -81.7867º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-2	1	0.6130	74-75	74.5	0.6873
2-4	3	0.6224	76-77	76.5	0.6744
4-6	5	0.6079	78-79	78.5	0.6602
6-8	7	0.5710	80-81	80.5	0.6625
8-10	9	0.5348	82-83	82.5	0.6329
10-12	11	0.5076	84-85	84.5	0.6454
12-14	13	0.5331	86-87	86.5	0.6514
14-16	15	0.5312	88-89	88.5	0.6441
16-18	17	0.5446	90-91	90.5	0.6585
18-20	19	0.5115	92-93	92.5	0.6349
20-22	21	0.4547	94-95	94.5	0.5917
22-24	23	0.5202	96-97	96.5	0.6178
24-26	25	0.5270	98-99	98.5	0.6212
26-28	27	0.5332	100-102	101	0.5920
28-30	29	0.4996	106-108	107	0.5521
30-32	31	0.5039	108-110	109	0.5588
32-34	33	0.5449	110-112	111	0.5673
34-36	35	0.5258	112-114	113	0.4866
36-38	37	0.5318	118-120	119	0.3963
38-40	39	0.5092	124-126	125	0.3518
40-42	41	0.4876	130-132	131	0.3438
42-44	43	0.5073	132-134	133	0.3472
44-46	45	0.4797	134-136	135	0.3427
46-48	47	0.4871	138-140	139	0.3182
48-50	49	0.4747	142-144	143	0.3264
50-52	51	0.4955	152-154	153	0.3342
52-54	53	0.5546	156-158	157	0.3614
54-56	55	0.5686	158-160	159	0.3928
56-58	57	0.5354	164-166	165	0.3614
58-60	59	0.5230	170-172	171	0.4097
60-62	61	0.6217	176-178	177	0.3610
62-64	63	0.6855	180-182	181	0.3649
64-66	65	0.6772			
66-68	67	0.6374			
68-70	69	0.6344			
70-71	70.5	0.6033			
72-73	72.5	0.6553			

Core N13 Latitude 26.1187º Longitude -81.7844º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.8362	41-42	41.5	0.8279
2-3	2.5	0.8395	42-43	42.5	0.8244
3-4	3.5	0.8494	43-44	43.5	0.8237
4-5	4.5	0.8458	44-45	44.5	0.8254
5-6	5.5	0.8553	45-46	45.5	0.8269
6-7	6.5	0.8453	46-47	46.5	0.8281
7-8	7.5	0.8429	47-48	47.5	0.8234
8-9	8.5	0.8396	48-49	48.5	0.8220
9-10	9.5	0.8380	49-50	49.5	0.8201
10-11	10.5	0.8474	50-51	50.5	0.8221
11-12	11.5	0.8423	52-53	52.5	0.8196
12-13	12.5	0.8479	54-55	54.5	0.8209
13-14	13.5	0.8414	56-57	56.5	0.8197
14-15	14.5	0.8445	58-59	58.5	0.8143
15-16	15.5	0.8376	60-61	60.5	0.8115
16-17	16.5	0.8352	62-63	62.5	0.8130
17-18	17.5	0.8405	64-65	64.5	0.7992
18-19	18.5	0.8327	66-67	66.5	0.7981
22-23	22.5	0.8526	68-69	68.5	0.8064
23-24	23.5	0.8367	70-71	70.5	0.8154
24-25	24.5	0.8345	72-73	72.5	0.8174
25-26	25.5	0.8349	74-75	74.5	0.8054
26-27	26.5	0.8324	76-77	76.5	0.8025
27-28	27.5	0.8336	78-79	78.5	0.8005
28-29	28.5	0.8358	80-81	80.5	0.8048
29-30	29.5	0.8391	82-83	82.5	0.8108
30-31	30.5	0.8345	84-85	84.5	0.8077
31-32	31.5	0.8328	86-87	86.5	0.8032
32-33	32.5	0.8288	88-89	88.5	0.8153
33-34	33.5	0.8329	90-91	90.5	0.7961
34-35	34.5	0.8354	92-93	92.5	0.7957
35-36	35.5	0.8416	94-95	94.5	0.7924
36-37	36.5	0.8377	96-97	96.5	0.7990
37-38	37.5	0.8263	98-99	98.5	0.8074
38-39	38.5	0.8302	100-102	101	0.8007
39-40	39.5	0.8309	106-108	107	0.7869
40-41	40.5	0.8338	112-114	113	0.7952

118-120	119	0.7904
124-126	125	0.7915
130-132	131	0.7936
136-138	137	0.7743
142-144	143	0.7749
148-150	149	0.7802
154-156	155	0.7720
160-162	161	0.7106
164-166	165	0.6250
168-170	169	0.5150
172-174	173	0.4761
176-178	177	0.4318
180-182	181	0.4978
184-186	185	0.4161

Core N15 Latitude 26.1198º Longitude -81.7920º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.7644	57-58	57.5	0.4078
3-4	3.5	0.7561	58-59	58.5	0.3846
4-5	4.5	0.7433	59-60	59.5	0.3886
5-6	5.5	0.7367	60-61	60.5	0.3735
6-7	6.5	0.7324	61-62	61.5	0.3903
7-8	7.5	0.7191	62-63	62.5	0.3990
8-9	8.5	0.6873	63-64	63.5	0.4091
9-10	9.5	0.6971	64-65	64.5	0.4007
10-11	10.5	0.6660	65-66	65.5	0.4083
11-12	11.5	0.6354	66-67	66.5	0.3941
12-13	12.5	0.5954	67-68	67.5	0.3802
13-14	13.5	0.5560	68-69	68.5	0.3859
14-15	14.5	0.5484	69-70	69.5	0.3704
15-16	15.5	0.5612	70-71	70.5	0.3672
16-18	16.5	0.6146	71-72	71.5	0.4034
18-20	19	0.6271	72-73	72.5	0.3614
20-22	21	0.6483	73-74	73.5	0.3596
22-24	23	0.6395	74-75	74.5	0.3334
24-26	25	0.6091	75-76	75.5	0.3437
26-28	27	0.6641	76-77	76.5	0.3708
28-30	29	0.6646	77-78	77.5	0.3824
30-32	31	0.6317	78-79	78.5	0.3686
32-34	33	0.6514	79-80	79.5	0.3782
34-36	35	0.5767	80-81	80.5	0.3660
36-38	37	0.5572	82-83	82.5	0.3652
38-40	39	0.6022	84-85	84.5	0.3774
40-42	41	0.5791	86-87	86.5	0.3646
42-44	43	0.5799	88-89	88.5	0.3564
44-46	45	0.5626	90-91	90.5	0.3435
46-48	47	0.5271	92-93	92.5	0.3502
48-50	49	0.5626	94-95	94.5	0.3190
50-51	50.5	0.5156	96-97	96.5	0.3456
52-53	52.5	0.4564	98-99	98.5	0.3498
53-54	53.5	0.4376	100-102	101	0.3570
54-55	54.5	0.4140	102-105	103.5	0.3505
55-56	55.5	0.4336			
56-57	56.5	0.4350			

Core N15-1 Latitude 26.1198º Longitude -81.7919º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.8313	43-44	43.5	0.6504
1-2	1.5	0.7971	44-45	44.5	0.6497
3-4	3.5	0.7295	45-46	45.5	0.6502
5-6	5.5	0.7215	46-47	46.5	0.6281
6-7	6.5	0.7191	47-48	47.5	0.6045
8-9	8.5	0.7379	48-49	48.5	0.6111
9-10	9.5	0.7199	49-50	49.5	0.5927
11-12	11.5	0.7014	50-51	50.5	0.6112
12-13	12.5	0.7069	51-52	51.5	0.6185
14-15	14.5	0.7083	52-53	52.5	0.5919
15-16	15.5	0.6907	54-55	54.5	0.5951
17-18	17.5	0.6852	55-56	55.5	0.5801
18-19	18.5	0.6804	56-57	56.5	0.5876
19-20	19.5	0.6650	57-58	57.5	0.6042
20-21	20.5	0.6652	58-59	58.5	0.5777
21-22	21.5	0.6293	59-60	59.5	0.5977
22-23	22.5	0.6267	60-61	60.5	0.5457
23-24	23.5	0.6248	61-62	61.5	0.5344
24-25	24.5	0.6257	62-63	62.5	0.5721
25-26	25.5	0.6051	63-64	63.5	0.5753
26-27	26.5	0.6214	64-65	64.5	0.5856
27-28	27.5	0.6170	65-66	65.5	0.5892
28-29	28.5	0.5827	66-67	66.5	0.5203
29-30	29.5	0.5651	67-68	67.5	0.5166
30-31	30.5	0.5492	68-69	68.5	0.5263
31-32	31.5	0.5578	69-70	69.5	0.4972
32-33	32.5	0.5687	70-71	70.5	0.4944
33-34	33.5	0.5983	71-72	71.5	0.5056
34-35	34.5	0.5983	72-73	72.5	0.4472
35-36	35.5	0.6188	73-74	73.5	0.3983
36-37	36.5	0.6091	74-75	74.5	0.4010
37-38	37.5	0.5930	75-76	75.5	0.3947
38-39	38.5	0.5912	76-77	76.5	0.4236
39-40	39.5	0.5980	77-78	77.5	0.4340
40-41	40.5	0.5948	78-79	78.5	0.3928
41-42	41.5	0.6196	79-80	79.5	0.4005
42-43	42.5	0.6594	80-81	80.5	0.4416

81-82	81.5	0.3791
82-83	82.5	0.3996
83-84	83.5	0.4166
84-85	84.5	0.4197
85-86	85.5	0.4223
86-87	86.5	0.4339
87-88	87.5	0.3853
88-89	88.5	0.3803
89-90	89.5	0.3593
90-91	90.5	0.3806
91-92	91.5	0.3860
92-93	92.5	0.4085
93-94	93.5	0.3896
94-95	94.5	0.4091
95-96	95.5	0.4146
96-97	96.5	0.4050
97-98	97.5	0.3809
98-99	98.5	0.4254
99-100	99.5	0.4754
100-102	101	0.4495
102-104	103	0.4255
104-106	105	0.3372
106-108	107	0.3455
108-110	109	0.3475
110-112	111	0.3420
114-116	115	0.3570
118-120	119	0.3450
124-126	125	0.3353
128-130	129	0.3343
134-136	135	0.3516
138-140	139	0.3596
148-150	149	0.3326
154-156	155	0.3493
160-162	161	0.3628
164-166	165	0.3467
168-170	169	0.3370

Core N17 Latitude 26.1302º Longitude -81.7929º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.5783	37-38	37.5	0.3395
1-2	1.5	0.5563	38-39	38.5	0.3539
2-3	2.5	0.5338	39-40	39.5	0.3438
3-4	3.5	0.5384	40-41	40.5	0.3479
4-5	4.5	0.5188	41-42	41.5	0.3223
5-6	5.5	0.5067	42-43	42.5	0.3302
6-7	6.5	0.4859	43-44	43.5	0.3452
7-8	7.5	0.4955	44-45	44.5	0.3234
8-9	8.5	0.5241	45-46	45.5	0.3287
9-10	9.5	0.4925	46-47	46.5	0.3321
10-11	10.5	0.5113	47-48	47.5	0.3358
11-12	11.5	0.5344	48-49	48.5	0.3380
12-13	12.5	0.5046	49-50	49.5	0.3441
13-14	13.5	0.5467	50-51	50.5	0.3405
14-15	14.5	0.4965	51-52	51.5	0.3460
15-16	15.5	0.4955	52-53	52.5	0.3670
16-17	16.5	0.4932	53-54	53.5	0.3504
17-18	17.5	0.5220	54-55	54.5	0.3589
18-19	18.5	0.4587	55-56	55.5	0.3526
19-20	19.5	0.4632	56-57	56.5	0.3603
20-21	20.5	0.4854	57-58	57.5	0.3661
21-22	21.5	0.5061	58-59	58.5	0.3527
22-23	22.5	0.4488	59-60	59.5	0.3330
23-24	23.5	0.5284	60-61	60.5	0.3427
24-25	24.5	0.5402	61-62	61.5	0.3341
25-26	25.5	0.5506	62-63	62.5	0.3533
26-27	26.5	0.5816	63-64	63.5	0.3566
27-28	27.5	0.5223	64-65	64.5	0.3518
28-29	28.5	0.5357	65-66	65.5	0.3456
29-30	29.5	0.5026	66-67	66.5	0.3506
30-31	30.5	0.3924	67-68	67.5	0.3403
31-32	31.5	0.3926	68-69	68.5	0.3585
32-33	32.5	0.3815	69-70	69.5	0.3479
33-34	33.5	0.4462	70-71	70.5	0.3426
34-35	34.5	0.4333	71-72	71.5	0.3263
35-36	35.5	0.3724	72-73	72.5	0.3213
36-37	36.5	0.3464	73-74	73.5	0.3213

74-75	74.5	0.3255
75-76	75.5	0.3321
76-77	76.5	0.3205
77-78	77.5	0.3201
78-79	78.5	0.3261
79-80	79.5	0.3328
80-81	80.5	0.3200
81-82	81.5	0.3290
82-83	82.5	0.3140
83-84	83.5	0.3131
84-85	84.5	0.3192
85-86	85.5	0.3135
86-87	86.5	0.3068
87-88	87.5	0.3148
88-89	88.5	0.3200
89-90	89.5	0.3261
90-91	90.5	0.3060
91-92	91.5	0.3358

Core N19 Latitude 26.1327º Longitude -81.7902º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4995	37-38	37.5	0.5033
1-2	1.5	0.4766	38-39	38.5	0.4730
2-3	2.5	0.4677	39-40	39.5	0.4899
3-4	3.5	0.4542	40-41	40.5	0.5518
4-5	4.5	0.4767	41-42	41.5	0.4907
5-6	5.5	0.4534	42-43	42.5	0.4776
6-7	6.5	0.4827	43-44	43.5	0.4950
7-8	7.5	0.4623	44-45	44.5	0.5418
8-9	8.5	0.4372	45-46	45.5	0.4816
9-10	9.5	0.4413	46-47	46.5	0.4962
10-11	10.5	0.4341	47-48	47.5	0.4759
11-12	11.5	0.4452	48-49	48.5	0.4602
12-13	12.5	0.4192	49-50	49.5	0.4555
13-14	13.5	0.4017	50-51	50.5	0.4260
14-15	14.5	0.4113	51-52	51.5	0.4372
15-16	15.5	0.4394	52-53	52.5	0.5461
16-17	16.5	0.3978	53-54	53.5	0.4903
17-18	17.5	0.4042	54-55	54.5	0.4496
18-19	18.5	0.4232	55-56	55.5	0.3900
19-20	19.5	0.4344	56-57	56.5	0.3769
20-21	20.5	0.3939	57-58	57.5	0.3529
21-22	21.5	0.4062	58-59	58.5	0.3706
22-23	22.5	0.4047	59-60	59.5	0.4154
23-24	23.5	0.4058	60-61	60.5	0.3555
24-25	24.5	0.3981	61-62	61.5	0.3585
25-26	25.5	0.4395	62-63	62.5	0.4983
26-27	26.5	0.4632	63-64	63.5	0.3800
27-28	27.5	0.4638	64-65	64.5	0.3360
28-29	28.5	0.4397	65-66	65.5	0.3547
29-30	29.5	0.4083	66-67	66.5	0.3787
30-31	30.5	0.5456	67-68	67.5	0.3334
31-32	31.5	0.5887	68-69	68.5	0.3368
32-33	32.5	0.5140	69-70	69.5	0.3535
33-34	33.5	0.5050	70-71	70.5	0.3439
34-35	34.5	0.5010	71-72	71.5	0.3264
35-36	35.5	0.4632	72-73	72.5	0.3280
36-37	36.5	0.5250	73-74	73.5	0.3309

74-75	74.5	0.3360
75-76	75.5	0.3409
76-77	76.5	0.3191
77-78	77.5	0.3397
78-79	78.5	0.3224
79-80	79.5	0.3191
80-81	80.5	0.3333
81-82	81.5	0.3364
82-83	82.5	0.3325
83-84	83.5	0.3315
84-85	84.5	0.3230
85-86	85.5	0.3433
86-87	86.5	0.3391
87-88	87.5	0.3295
88-89	88.5	0.3325
89-90	89.5	0.3370
90-91	90.5	0.3369
91-92	91.5	0.3303
92-93	92.5	0.3504

Core N20 Latitude 26.1360º Longitude -81.7913º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.8211	37-38	37.5	0.4697
1-2	1.5	0.7998	38-39	38.5	0.4302
2-3	2.5	0.7943	39-40	39.5	0.3999
3-4	3.5	0.7912	40-41	40.5	0.4103
4-5	4.5	0.7905			
5-6	5.5	0.7917			
6-7	6.5	0.7970			
7-8	7.5	0.7920			
8-9	8.5	0.7555			
9-10	9.5	0.7798			
10-11	10.5	0.7719			
11-12	11.5	0.7494			
12-13	12.5	0.6842			
13-14	13.5	0.7088			
14-15	14.5	0.6711			
15-16	15.5	0.6901			
16-17	16.5	0.6881			
17-18	17.5	0.6770			
18-19	18.5	0.7031			
19-20	19.5	0.6958			
20-21	20.5	0.6699			
21-22	21.5	0.7000			
22-23	22.5	0.6866			
23-24	23.5	0.7083			
24-25	24.5	0.6907			
25-26	25.5	0.7089			
26-27	26.5	0.7203			
27-28	27.5	0.7241			
28-29	28.5	0.7117			
29-30	29.5	0.6898			
30-31	30.5	0.6230			
31-32	31.5	0.6006			
32-33	32.5	0.5569			
33-34	33.5	0.5171			
34-35	34.5	0.5431			
35-36	35.5	0.5521			
36-37	36.5	0.5846			

Core N21 Latitude 26.1424º Longitude -81.7874º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.8719	47-48	47.5	0.4818
2-3	2.5	0.8619	48-49	48.5	0.3841
4-5	4.5	0.8372	49-50	49.5	0.3837
6-7	6.5	0.7956	50-51	50.5	0.4069
8-9	8.5	0.7467	51-52	51.5	0.4031
9-10	9.5	0.7674	52-53	52.5	0.3975
11-12	11.5	0.7802	53-54	53.5	0.4089
13-14	13.5	0.7921	54-55	54.5	0.5127
15-16	15.5	0.7753	55-56	55.5	0.6456
17-18	17.5	0.7930	56-57	56.5	0.7117
19-20	19.5	0.7998	58-59	58.5	0.5904
20-21	20.5	0.8017	59-60	59.5	0.4574
21-22	21.5	0.8057	60-61	60.5	0.4049
22-23	22.5	0.8253	61-62	61.5	0.4165
23-24	23.5	0.8096	62-63	62.5	0.4053
24-25	24.5	0.7974	63-64	63.5	0.4121
25-26	25.5	0.7999	64-65	64.5	0.3812
26-27	26.5	0.8017	65-66	65.5	0.3968
27-28	27.5	0.7890	66-67	66.5	0.3834
28-29	28.5	0.7943	67-68	67.5	0.3818
29-30	29.5	0.8090	68-69	68.5	0.3718
30-31	30.5	0.7640	69-70	69.5	0.3851
31-32	31.5	0.7219	70-71	70.5	0.3878
32-33	32.5	0.7029	71-72	71.5	0.3812
33-34	33.5	0.6841	72-73	72.5	0.3817
34-35	34.5	0.6989	73-74	73.5	0.3813
35-36	35.5	0.6829	74-75	74.5	0.3942
36-37	36.5	0.6835	75-76	75.5	0.3860
37-38	37.5	0.7035	76-77	76.5	0.4015
38-39	38.5	0.7081	77-78	77.5	0.3705
39-40	39.5	0.6929	79-80	79.5	0.3949
40-41	40.5	0.7113	80-81	80.5	0.3872
41-42	41.5	0.7117	81-82	81.5	0.3761
42-43	42.5	0.6070	82-83	82.5	0.4243
43-44	43.5	0.5314	83-84	83.5	0.4480
44-45	44.5	0.5369	84-85	84.5	0.4590
45-46	45.5	0.5442	85-86	85.5	0.4505

86-87	86.5	0.4654
87-88	87.5	0.4975
88-89	88.5	0.5085
89-90	89.5	0.5128
90-91	90.5	0.4591
91-92	91.5	0.5129
92-93	92.5	0.5458
93-94	93.5	0.5977
94-95	94.5	0.6531
95-96	95.5	0.6696
96-97	96.5	0.5762
97-98	97.5	0.5513
98-99	98.5	0.4702
99-100	99.5	0.4361
100-102	101	0.4099
102-104	103	0.3799
104-106	105	0.3516
106-108	107	0.3397
108-110	109	0.3445
110-112	111	0.3322
112-114	113	0.3447
114-116	115	0.3320
116-118	117	0.3469
118-120	119	0.3347
120-122	121	0.3381
122-124	123	0.3296
126-128	127	0.3394
128-130	129	0.3351

Core N30 Latitude 26.0948º Longitude -81.7871º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4731	38-39	38.5	0.4910
1-2	1.5	0.4449	39-40	39.5	0.5138
2-3	2.5	0.4605	40-41	40.5	0.5480
3-4	3.5	0.4420	41-42	41.5	0.5310
4-5	4.5	0.4309	42-43	42.5	0.5523
5-6	5.5	0.4235	43-44	43.5	0.5323
6-7	6.5	0.4239	44-45	44.5	0.4823
7-8	7.5	0.4232	45-46	45.5	0.4751
8-9	8.5	0.4273	46-47	46.5	0.4826
9-10	9.5	0.4397	47-48	47.5	0.5230
10-11	10.5	0.4410	48-49	48.5	0.5517
11-12	11.5	0.4176	49-50	49.5	0.5779
12-13	12.5	0.4200	50-51	50.5	0.5252
14-15	14.5	0.4300	52-53	52.5	0.5454
15-16	15.5	0.4454	54-55	54.5	0.5357
16-17	16.5	0.4253	56-57	56.5	0.5299
17-18	17.5	0.4385	58-59	58.5	0.5415
18-19	18.5	0.4258	60-61	60.5	0.5360
19-20	19.5	0.4152	62-63	62.5	0.5518
20-21	20.5	0.4256	64-65	64.5	0.5910
21-22	21.5	0.4564	66-67	66.5	0.5511
22-23	22.5	0.5030	70-71	70.5	0.6289
23-24	23.5	0.4204	74-75	74.5	0.5837
24-25	24.5	0.4178	78-79	78.5	0.5282
25-26	25.5	0.4094	82-83	82.5	0.5114
26-27	26.5	0.4227	86-87	86.5	0.5248
27-28	27.5	0.4168	90-91	90.5	0.5073
28-29	28.5	0.4260	94-95	94.5	0.5098
29-30	29.5	0.4464	98-99	98.5	0.5277
30-31	30.5	0.4299	104-106	105	0.4861
31-32	31.5	0.4599	112-114	113	0.5191
32-33	32.5	0.4633	120-122	121	0.5572
33-34	33.5	0.4738	124-126	125	0.6443
34-35	34.5	0.4638	126-128	127	0.6412
35-36	35.5	0.4530	128-130	129	0.6676
36-37	36.5	0.5004	130-132	131	0.6204
37-38	37.5	0.4842	132-134	133	0.6407

134-136	135	0.5783
136-138	137	0.6211
138-140	139	0.5933
142-144	143	0.6434
150-152	151	0.6686
158-160	159	0.6898
166-168	167	0.7659
174-176	175	0.5987
182-184	183	0.7264
190-192	191	0.7360
198-200	199	0.7137
200-202	201	0.6171
202-204	203	0.6021
204-206	205	0.5173
206-208	207	0.5399
208-211	209.5	0.6459

Core N31 Latitude 26.0897º Longitude -81.7858º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4109	37-38	37.5	0.4685
1-2	1.5	0.3953	38-39	38.5	0.4791
2-3	2.5	0.3869	39-40	39.5	0.4731
3-4	3.5	0.3960	40-41	40.5	0.4799
4-5	4.5	0.3829	41-42	41.5	0.4809
5-6	5.5	0.3880	42-43	42.5	0.4930
6-7	6.5	0.3719	43-44	43.5	0.4949
7-8	7.5	0.3738	44-45	44.5	0.4955
8-9	8.5	0.3774	45-46	45.5	0.4987
9-10	9.5	0.3720	46-47	46.5	0.4940
10-11	10.5	0.3689	47-48	47.5	0.4910
11-12	11.5	0.3667	48-49	48.5	0.4894
12-13	12.5	0.3664	49-50	49.5	0.4879
13-14	13.5	0.3718	50-51	50.5	0.4747
14-15	14.5	0.3743	51-52	51.5	0.4755
15-16	15.5	0.3837	52-53	52.5	0.4822
16-17	16.5	0.3845	53-54	53.5	0.4595
17-18	17.5	0.3871	55-56	55.5	0.5083
18-19	18.5	0.3861	56-57	56.5	0.4879
19-20	19.5	0.3712	57-58	57.5	0.4969
20-21	20.5	0.3812	58-59	58.5	0.4925
21-22	21.5	0.3921	59-60	59.5	0.4713
22-23	22.5	0.3992	60-61	60.5	0.4848
23-24	23.5	0.4120	61-62	61.5	0.4740
24-25	24.5	0.4076	62-63	62.5	0.5029
25-26	25.5	0.4332	63-64	63.5	0.5694
26-27	26.5	0.5121	64-65	64.5	0.5826
27-28	27.5	0.4784	65-66	65.5	0.5521
28-29	28.5	0.4482	66-67	66.5	0.4829
29-30	29.5	0.4135	67-68	67.5	0.5305
30-31	30.5	0.4039	68-69	68.5	0.5221
31-32	31.5	0.4060	69-70	69.5	0.5061
32-33	32.5	0.3906	70-71	70.5	0.5389
33-34	33.5	0.3852	71-72	71.5	0.5280
34-35	34.5	0.4312	72-73	72.5	0.5030
35-36	35.5	0.4440	73-74	73.5	0.4777
36-37	36.5	0.4617	74-75	74.5	0.4906

75-76	75.5	0.4781	148-150	149	0.4367
76-77	76.5	0.4730	152-154	153	0.4223
77-78	77.5	0.4872	156-158	157	0.3996
78-79	78.5	0.4739	160-162	161	0.3811
79-80	79.5	0.4858	164-166	165	0.3855
80-81	80.5	0.4619	168-170	169	0.4104
81-82	81.5	0.4862	172-174	173	0.4250
82-83	82.5	0.5081			
83-84	83.5	0.5191			
84-85	84.5	0.5135			
85-86	85.5	0.5614			
86-87	86.5	0.5553			
87-88	87.5	0.5539			
88-89	88.5	0.5469			
89-90	89.5	0.5407			
90-91	90.5	0.5478			
91-92	91.5	0.5315			
92-93	92.5	0.5244			
93-94	93.5	0.5184			
94-95	94.5	0.5218			
95-96	95.5	0.5096			
96-97	96.5	0.5226			
97-98	97.5	0.5157			
98-99	98.5	0.5265			
99-100	99.5	0.4983			
100-102	101	0.5560			
104-106	105	0.5570			
108-110	109	0.5279			
112-114	113	0.6004			
116-118	117	0.5309			
120-122	121	0.5596			
124-126	125	0.6104			
128-130	129	0.5725			
132-134	133	0.5565			
136-138	137	0.5147			
140-142	141	0.5525			
144-146	145	0.5251			

Core N32 Latitude 26.0860º Longitude -81.7858º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4754	37-38	37.5	0.4715
1-2	1.5	0.4757	38-39	38.5	0.5289
2-3	2.5	0.4918	39-40	39.5	0.5308
3-4	3.5	0.4962	40-41	40.5	0.5374
4-5	4.5	0.5159	41-42	41.5	0.5320
5-6	5.5	0.4999	42-43	42.5	0.5170
6-7	6.5	0.4823	43-44	43.5	0.5385
7-8	7.5	0.4271	44-45	44.5	0.4891
8-9	8.5	0.4158	45-46	45.5	0.5604
9-10	9.5	0.4272	46-47	46.5	0.5139
10-11	10.5	0.4087	47-48	47.5	0.4938
11-12	11.5	0.4102	48-49	48.5	0.4723
12-13	12.5	0.4374	49-50	49.5	0.4962
13-14	13.5	0.4337	50-51	50.5	0.5237
14-15	14.5	0.4415	52-53	52.5	0.5293
15-16	15.5	0.4580	54-55	54.5	0.5002
16-17	16.5	0.4584	56-57	56.5	0.4985
17-18	17.5	0.4729	58-59	58.5	0.4628
18-19	18.5	0.4729	60-61	60.5	0.4680
19-20	19.5	0.5018	62-63	62.5	0.4641
20-21	20.5	0.4880	64-65	64.5	0.4283
21-22	21.5	0.4736	66-67	66.5	0.4358
22-23	22.5	0.5238	68-69	68.5	0.4047
23-24	23.5	0.5030	70-71	70.5	0.4450
24-25	24.5	0.4635	72-73	72.5	0.4816
25-26	25.5	0.5060	74-75	74.5	0.5020
26-27	26.5	0.4875	76-77	76.5	0.5260
27-28	27.5	0.5224	78-79	78.5	0.5420
28-29	28.5	0.4911	80-81	80.5	0.5473
29-30	29.5	0.5059	82-83	82.5	0.5342
30-31	30.5	0.5240	84-85	84.5	0.5401
31-32	31.5	0.5466	86-87	86.5	0.5761
32-33	32.5	0.5014	88-89	88.5	0.5588
33-34	33.5	0.5234	90-91	90.5	0.5547
34-35	34.5	0.5447	92-93	92.5	0.5545
35-36	35.5	0.5097	94-95	94.5	0.5609
36-37	36.5	0.4976	96-97	96.5	0.5432

98-99	98.5	0.5539
100-102	101	0.5752
104-106	105	0.6003
108-110	109	0.5904
112-114	113	0.5408
116-118	117	0.5532
120-122	121	0.5577
124-126	125	0.4643
128-130	129	0.4592
132-134	133	0.5245
134-136	135	0.5001
142-144	143	0.5335
150-152	151	0.5175
158-160	159	0.5511
166-168	167	0.5141
174-176	175	0.4861
182-184	183	0.4784
190-192	191	0.5690
198-200	199	0.5541
200-202	201	0.6045
202-204	203	0.5788
210-212	211	0.5325
216-218	217	0.4754
218-220	219	0.5027
220-222	221	0.4627
226-228	227	0.4471
232-234	233	0.3909
238-240	239	0.3829
242-244	243	0.4006
244-246	245	0.6524
246-248	247	0.6335
250-252	251	0.5303
252-254	253	0.4512
254-256	255	0.3937
258-260	259	0.3740
266-268	267	0.3920
274-276	275	0.4017
282-284	283	0.4429
284-287	285.5	0.4422

Core N33 Latitude 26.0844º Longitude -81.7882º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.6315	37-38	37.5	0.4797
1-2	1.5	0.6441	38-39	38.5	0.5060
2-3	2.5	0.6639	39-40	39.5	0.4878
3-4	3.5	0.6725	40-41	40.5	0.4731
4-5	4.5	0.6724	41-42	41.5	0.4848
5-6	5.5	0.6477	42-43	42.5	0.4754
6-7	6.5	0.6124	43-44	43.5	0.4884
7-8	7.5	0.6133	44-45	44.5	0.4800
8-9	8.5	0.6185	45-46	45.5	0.4770
9-10	9.5	0.6198	46-47	46.5	0.4827
10-11	10.5	0.5712	47-48	47.5	0.4950
11-12	11.5	0.5524	48-49	48.5	0.4698
12-13	12.5	0.5432	49-50	49.5	0.4704
13-14	13.5	0.4951	50-52	51	0.4649
14-15	14.5	0.5172	52-54	53	0.4666
15-16	15.5	0.5162	54-56	55	0.4773
16-17	16.5	0.5151	56-58	57	0.5018
17-18	17.5	0.5388	58-60	59	0.4846
18-19	18.5	0.5298	60-62	61	0.4688
19-20	19.5	0.5358	62-64	63	0.4679
20-21	20.5	0.5399	64-66	65	0.4643
21-22	21.5	0.5552	66-68	67	0.4881
22-23	22.5	0.5072	68-70	69	0.5219
23-24	23.5	0.5160	70-72	71	0.4674
24-25	24.5	0.5110	72-74	73	0.4840
25-26	25.5	0.5226	74-76	75	0.5200
26-27	26.5	0.5252	76-78	77	0.5138
27-28	27.5	0.5448	78-80	79	0.5112
28-29	28.5	0.5427	82-84	83	0.5398
29-30	29.5	0.5295	86-88	87	0.5519
30-31	30.5	0.5201	90-92	91	0.5721
31-32	31.5	0.5164	94-96	95	0.5689
32-33	32.5	0.5009	98-100	99	0.6138
33-34	33.5	0.5066	104-106	105	0.5852
34-35	34.5	0.4895	110-112	111	0.5957
35-36	35.5	0.5095	116-118	117	0.5856
36-37	36.5	0.5036	122-124	123	0.6522

128-130	129	0.6634
134-136	135	0.6532
140-142	141	0.6452
146-148	147	0.4925
152-154	153	0.6010
154-156	155	0.6228
156-158	157	0.6189
158-160	159	0.5847
160-162	161	0.5984
166-168	167	0.5506
172-174	173	0.6318
178-180	179	0.6755
186-188	187	0.6848
188-190	189	0.5523
190-192	191	0.6136
192-194	193	0.7009
198-200	199	0.7509
204-206	205	0.7170
212-214	213	0.7612
218-220	219	0.7064
224-226	225	0.6872
226-228	227	0.7463
228-230	229	0.6969
230-232	231	0.7629
236-238	237	0.8134
242-244	243	0.6621
244-246	245	0.4860
246-248	247	0.4229
252-254	253	0.4532
260-262	261	0.4267

Core N34 Latitude 26.0825º Longitude -81.7869º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.5120	37-38	37.5	0.4942
1-2	1.5	0.5894	38-39	38.5	0.5059
2-3	2.5	0.5320	39-40	39.5	0.4865
3-4	3.5	0.5501	40-41	40.5	0.4620
4-5	4.5	0.5261	41-42	41.5	0.4701
5-6	5.5	0.5457	42-43	42.5	0.4440
6-7	6.5	0.5495	43-44	43.5	0.4681
7-8	7.5	0.5084	44-45	44.5	0.4504
8-9	8.5	0.4992	45-46	45.5	0.4641
9-10	9.5	0.5014	46-47	46.5	0.4331
10-11	10.5	0.4994	47-48	47.5	0.4467
11-12	11.5	0.5239	48-49	48.5	0.4658
12-13	12.5	0.5098	49-50	49.5	0.4586
13-14	13.5	0.5425	50-51	50.5	0.4510
14-15	14.5	0.5055	51-52	51.5	0.4430
15-16	15.5	0.4975	52-53	52.5	0.4319
16-17	16.5	0.4938	53-54	53.5	0.4568
17-18	17.5	0.5089	54-55	54.5	0.4865
18-19	18.5	0.4745	55-56	55.5	0.4479
19-20	19.5	0.4419	56-57	56.5	0.4233
20-21	20.5	0.4228	57-58	57.5	0.4218
21-22	21.5	0.4567	58-59	58.5	0.4415
22-23	22.5	0.4539	59-60	59.5	0.4537
23-24	23.5	0.4500	60-61	60.5	0.4590
24-25	24.5	0.4490	61-62	61.5	0.4997
25-26	25.5	0.4388	62-63	62.5	0.4614
26-27	26.5	0.4439	63-64	63.5	0.4514
27-28	27.5	0.4736	64-65	64.5	0.4331
28-29	28.5	0.4696	65-66	65.5	0.4235
29-30	29.5	0.4630	66-67	66.5	0.4310
30-31	30.5	0.4738	67-68	67.5	0.4194
31-32	31.5	0.4859	68-69	68.5	0.4370
32-33	32.5	0.5030	69-70	69.5	0.4097
33-34	33.5	0.4906	70-71	70.5	0.4367
34-35	34.5	0.4654	71-72	71.5	0.4428
35-36	35.5	0.4929	72-73	72.5	0.4499
36-37	36.5	0.4973	73-74	73.5	0.4694

74-75	74.5	0.4628	128-130	129	0.5281
75-76	75.5	0.4802	130-132	131	0.5352
76-77	76.5	0.4410	132-134	133	0.5227
77-78	77.5	0.4518	134-136	135	0.4814
78-79	78.5	0.4602	136-138	137	0.5012
79-80	79.5	0.4690	138-140	139	0.5684
80-81	80.5	0.4769	140-142	141	0.5818
81-82	81.5	0.4950	142-144	143	0.5971
82-83	82.5	0.4657	144-146	145	0.5383
83-84	83.5	0.4688	146-148	147	0.5137
84-85	84.5	0.4978	148-150	149	0.5468
85-86	85.5	0.4707	150-152	151	0.5384
86-87	86.5	0.4871	152-154	153	0.5354
87-88	87.5	0.4953	154-156	155	0.5079
88-89	88.5	0.5066	156-158	157	0.5718
89-90	89.5	0.5185	158-160	159	0.5716
90-91	90.5	0.5090	160-162	161	0.5969
91-92	91.5	0.4826	162-164	163	0.5446
92-93	92.5	0.4849	164-166	165	0.5677
93-94	93.5	0.5021	166-168	167	0.5778
94-95	94.5	0.5195	168-170	169	0.5823
95-96	95.5	0.5294	170-172	171	0.5822
96-97	96.5	0.5418	172-174	173	0.6126
97-98	97.5	0.5462	174-176	175	0.5754
98-99	98.5	0.5516	176-178	177	0.5637
99-100	99.5	0.5419	178-180	179	0.5817
100-102	101	0.5435	180-182	181	0.5486
102-104	103	0.5658	182-184	183	0.5058
104-106	105	0.5253	184-186	185	0.5281
106-108	107	0.5232	186-188	187	0.5047
108-110	109	0.5265	188-190	189	0.4867
110-112	111	0.5553	190-192	191	0.4812
112-114	113	0.5409	192-194	193	0.4682
114-116	115	0.5810	194-196	195	0.4707
116-118	117	0.5388	196-198	197	0.4777
118-120	119	0.5989	198-200	199	0.4408
120-122	121	0.5899	200-202	201	0.4727
122-124	123	0.5777	202-204	203	0.4560
124-126	125	0.5974	204-206	205	0.4492
126-128	127	0.5525	206-208	207	0.4330

208-210	209	0.4424
210-212	211	0.4487
212-214	213	0.4535
214-216	215	0.4691
216-218	217	0.4435
218-220	219	0.4729
220-222	221	0.4618
222-224	223	0.4832
224-226	225	0.4970
226-228	227	0.5226
228-229	228.5	0.5695

Core N36 Latitude 26.0826º Longitude -81.7909º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.6184	41-42	41.5	0.2640
1-2	1.5	0.6168	42-43	42.5	0.2664
3-4	3.5	0.6192	43-44	43.5	0.2835
5-6	5.5	0.4637	44-45	44.5	0.2825
6-7	6.5	0.3768	45-46	45.5	0.3366
7-8	7.5	0.4966	46-47	46.5	0.2908
8-9	8.5	0.4548	47-48	47.5	0.4464
9-10	9.5	0.4716	48-49	48.5	0.5791
10-11	10.5	0.4279	49-50	49.5	0.5984
11-12	11.5	0.3547	50-51	50.5	0.4852
12-13	12.5	0.4427	51-52	51.5	0.5788
13-14	13.5	0.4287	52-53	52.5	0.5296
14-15	14.5	0.4657	53-54	53.5	0.5373
15-16	15.5	0.4238	54-55	54.5	0.4962
17-18	17.5	0.4090	55-56	55.5	0.5357
18-19	18.5	0.3185	56-57	56.5	0.4371
19-20	19.5	0.3851	57-58	57.5	0.4004
21-22	21.5	0.4187	58-59	58.5	0.3684
22-23	22.5	0.4144	59-60	59.5	0.4574
23-24	23.5	0.3732	60-61	60.5	0.4242
24-25	24.5	0.3614	61-62	61.5	0.4551
25-26	25.5	0.4208	62-63	62.5	0.4065
26-27	26.5	0.2918	63-64	63.5	0.4621
27-28	27.5	0.3543	64-65	64.5	0.5188
28-29	28.5	0.4374	65-66	65.5	0.4031
29-30	29.5	0.4124	66-67	66.5	0.5119
30-31	30.5	0.4074	67-68	67.5	0.4857
31-32	31.5	0.4057	68-69	68.5	0.3898
32-33	32.5	0.3742	69-70	69.5	0.5313
33-34	33.5	0.3843	70-71	70.5	0.5610
34-35	34.5	0.3946	71-72	71.5	0.5162
35-36	35.5	0.3420	72-73	72.5	0.3681
36-37	36.5	0.3281	73-74	73.5	0.4129
37-38	37.5	0.3119	74-75	74.5	0.4188
38-39	38.5	0.2025	75-76	75.5	0.4343
39-40	39.5	0.3053	76-77	76.5	0.4944
40-41	40.5	0.3124	77-78	77.5	0.5079

78-79	78.5	0.4584	202-204	203	0.4049
79-80	79.5	0.6327	208-210	209	0.3805
80-81	80.5	0.6195	214-216	215	0.4185
81-82	81.5	0.5861			
82-83	82.5	0.5662			
83-84	83.5	0.5927			
84-85	84.5	0.5661			
85-86	85.5	0.5506			
86-87	86.5	0.4987			
87-88	87.5	0.5615			
88-89	88.5	0.5560			
89-90	89.5	0.5383			
90-91	90.5	0.5886			
91-92	91.5	0.5839			
92-93	92.5	0.5742			
93-94	93.5	0.5759			
94-95	94.5	0.5517			
95-96	95.5	0.5458			
96-97	96.5	0.5356			
97-98	97.5	0.4752			
98-99	98.5	0.4230			
99-100	99.5	0.4283			
100-102	101	0.4130			
106-108	107	0.4346			
112-114	113	0.4097			
118-120	119	0.3609			
122-124	123	0.3695			
124-126	125	0.3569			
130-132	131	0.3836			
136-138	137	0.4025			
142-144	143	0.3970			
148-150	149	0.3941			
154-156	155	0.3873			
160-162	161	0.3899			
166-168	167	0.3902			
172-174	173	0.4001			
178-180	179	0.3875			
184-186	185	0.3981			
190-192	191	0.4293			
196-198	197	0.4084			

Core N37 Latitude 26.1279º Longitude -81.7891º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.5908	39-40	39.5	0.5828
1-2	1.5	0.4468	40-41	40.5	0.5642
2-3	2.5	0.4115	41-42	41.5	0.5660
3-4	3.5	0.4028	42-43	42.5	0.5733
4-5	4.5	0.4136	43-44	43.5	0.5256
5-6	5.5	0.4081	44-45	44.5	0.5722
6-7	6.5	0.4299	45-46	45.5	0.5371
7-8	7.5	0.4501	46-47	46.5	0.5060
8-9	8.5	0.4324	47-48	47.5	0.4495
9-10	9.5	0.4388	48-49	48.5	0.4372
10-11	10.5	0.4024	49-50	49.5	0.4314
11-12	11.5	0.4177	50-51	50.5	0.4248
12-13	12.5	0.4472	51-52	51.5	0.4455
13-14	13.5	0.4515	52-53	52.5	0.4242
14-15	14.5	0.5188	53-54	53.5	0.4277
15-16	15.5	0.4749	54-55	54.5	0.4547
16-17	16.5	0.4948	55-56	55.5	0.5280
17-18	17.5	0.5355	56-57	56.5	0.5223
18-19	18.5	0.4635	57-58	57.5	0.5621
19-20	19.5	0.4879	58-59	58.5	0.5313
20-21	20.5	0.4958	59-60	59.5	0.5867
21-22	21.5	0.4665	60-61	60.5	0.5216
22-23	22.5	0.4503	61-62	61.5	0.5901
23-24	23.5	0.4659	62-63	62.5	0.5018
24-25	24.5	0.4705	63-64	63.5	0.5052
25-26	25.5	0.4519	64-65	64.5	0.5286
26-27	26.5	0.4600	65-66	65.5	0.5297
27-28	27.5	0.4533	66-67	66.5	0.5851
28-29	28.5	0.4338	67-68	67.5	0.5445
29-30	29.5	0.4592	68-69	68.5	0.5663
30-31	30.5	0.4577	69-70	69.5	0.5588
31-32	31.5	0.4934	70-71	70.5	0.5842
32-33	32.5	0.4670	71-72	71.5	0.5599
33-34	33.5	0.4557	72-73	72.5	0.5565
34-35	34.5	0.4649	73-74	73.5	0.5151
35-36	35.5	0.4706	74-75	74.5	0.4881
36-37	36.5	0.4770	75-76	75.5	0.4622
37-38	37.5	0.5383	76-77	76.5	0.5410
38-39	38.5	0.5337			

Core N39 Latitude 26.1159º Longitude -81.7881º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.5077			
1-2	1.5	0.5047			
2-3	2.5	0.4774			
3-4	3.5	0.4822			
4-5	4.5	0.4416			
5-6	5.5	0.4731			
6-7	6.5	0.4464			
7-8	7.5	0.4958			
8-9	8.5	0.4586			
9-10	9.5	0.4503			
10-11	10.5	0.4562			
11-12	11.5	0.4810			
12-13	12.5	0.4916			
13-14	13.5	0.4777			
14-15	14.5	0.4420			
15-16	15.5	0.4940			
16-17	16.5	0.4303			
17-18	17.5	0.4780			
18-19	18.5	0.4882			
19-20	19.5	0.5094			
20-21	20.5	0.4732			
21-22	21.5	0.4891			
22-23	22.5	0.5055			
23-24	23.5	0.5097			
24-25	24.5	0.5524			
25-26	25.5	0.5140			
26-27	26.5	0.5436			

Core N40 Latitude 26.1020º Longitude -81.7855º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.6105	38-39	38.5	0.5230
1-2	1.5	0.5730	39-40	39.5	0.5291
2-3	2.5	0.5469	40-41	40.5	0.5409
3-4	3.5	0.5512	41-42	41.5	0.5372
4-5	4.5	0.5342	42-43	42.5	0.5362
5-6	5.5	0.5364	43-44	43.5	0.5341
6-7	6.5	0.5208	44-45	44.5	0.5592
7-8	7.5	0.5568	45-46	45.5	0.5307
8-9	8.5	0.5168	46-47	46.5	0.5586
9-10	9.5	0.5007	47-48	47.5	0.5451
10-11	10.5	0.5156	48-49	48.5	0.5449
11-12	11.5	0.5051	49-50	49.5	0.5751
12-13	12.5	0.4896	50-51	50.5	0.5458
13-14	13.5	0.4955	51-52	51.5	0.5513
14-15	14.5	0.4976	52-53	52.5	0.5128
15-16	15.5	0.5128	53-54	53.5	0.5143
16-17	16.5	0.5119	54-55	54.5	0.5148
17-18	17.5	0.5135	55-56	55.5	0.4896
18-19	18.5	0.5364	56-57	56.5	0.5028
20-21	20.5	0.4922	57-58	57.5	0.4755
21-22	21.5	0.5019	58-59	58.5	0.4482
22-23	22.5	0.4928	59-60	59.5	0.4426
23-24	23.5	0.5024	60-61	60.5	0.4296
24-25	24.5	0.4841	61-62	61.5	0.4169
25-26	25.5	0.5048	62-63	62.5	0.4033
26-27	26.5	0.5331	63-64	63.5	0.4071
27-28	27.5	0.5590	64-65	64.5	0.4076
28-29	28.5	0.5087	65-66	65.5	0.4046
29-30	29.5	0.5221	66-67	66.5	0.4033
30-31	30.5	0.5069	67-68	67.5	0.4365
31-32	31.5	0.5119	68-69	68.5	0.4349
32-33	32.5	0.5092	69-70	69.5	0.4501
33-34	33.5	0.4842	70-71	70.5	0.4474
34-35	34.5	0.5025	71-72	71.5	0.4166
35-36	35.5	0.4944	72-73	72.5	0.4296
36-37	36.5	0.5169	73-74	73.5	0.4295
37-38	37.5	0.5264	74-75	74.5	0.4276

75-76	75.5	0.4208
76-77	76.5	0.4177
77-78	77.5	0.4004
78-79	78.5	0.4014
79-80	79.5	0.4063
80-81	80.5	0.4373
81-82	81.5	0.3756
82-83	82.5	0.3869
83-84	83.5	0.4087
84-85	84.5	0.3883
85-86	85.5	0.3739
86-87	86.5	0.3618
87-88	87.5	0.3636
88-89	88.5	0.3977
89-90	89.5	0.3672
90-91	90.5	0.3809
91-92	91.5	0.3681
92-93	92.5	0.3488
93-94	93.5	0.3446
94-95	94.5	0.3316
95-96	95.5	0.3285
96-97	96.5	0.3701
97-98	97.5	0.3720
98-99	98.5	0.3913
99-100	99.5	0.3865
100-102	101	0.3807
102-103	102.5	0.4190

Core N41 Latitude 26.1106º Longitude -81.7850º

INTERVAL (cm)	MIDPOINT (cm)	POROSITY	INTERVAL (cm)	MIDPOINT (cm)	POROSITY
0-1	0.5	0.4029	37-38	37.5	0.5268
1-2	1.5	0.3962	38-39	38.5	0.5367
2-3	2.5	0.4115	39-40	39.5	0.5626
3-4	3.5	0.3913	40-41	40.5	0.5723
4-5	4.5	0.4018	41-42	41.5	0.5912
5-6	5.5	0.3926	42-43	42.5	0.5576
6-7	6.5	0.3894	43-44	43.5	0.5104
7-8	7.5	0.3769	44-45	44.5	0.5548
8-9	8.5	0.3863	45-46	45.5	0.5288
9-10	9.5	0.3915	46-47	46.5	0.5099
10-11	10.5	0.4019	47-48	47.5	0.5007
11-12	11.5	0.3975	48-49	48.5	0.4999
12-13	12.5	0.3820	49-50	49.5	0.4877
13-14	13.5	0.3948	50-51	50.5	0.4690
14-15	14.5	0.3911	51-52	51.5	0.5151
15-16	15.5	0.3858	52-53	52.5	0.4714
16-17	16.5	0.3839	53-54	53.5	0.4574
17-18	17.5	0.3794	54-55	54.5	0.4506
18-19	18.5	0.3761	55-56	55.5	0.4439
19-20	19.5	0.3737	56-57	56.5	0.4412
20-21	20.5	0.3702	57-58	57.5	0.4409
21-22	21.5	0.3833	58-59	58.5	0.4305
22-23	22.5	0.3836	59-60	59.5	0.4083
23-24	23.5	0.3766	60-61	60.5	0.4290
24-25	24.5	0.3662	61-62	61.5	0.4178
25-26	25.5	0.4242	62-63	62.5	0.3952
26-27	26.5	0.4063	63-64	63.5	0.3879
27-28	27.5	0.4035	64-65	64.5	0.3771
28-29	28.5	0.4351	65-66	65.5	0.3832
29-30	29.5	0.4345	66-67	66.5	0.3951
30-31	30.5	0.4202	68-69	68.5	0.3882
31-32	31.5	0.4326	70-71	70.5	0.3817
32-33	32.5	0.4861	72-73	72.5	0.3782
33-34	33.5	0.4724	74-75	74.5	0.3778
34-35	34.5	0.4849	76-77	76.5	0.3738
35-36	35.5	0.5028	78-79	78.5	0.3752
36-37	36.5	0.5480	80-81	80.5	0.4009

82-83	82.5	0.3873
84-85	84.5	0.3616
86-87	86.5	0.3797
88-89	88.5	0.3560
90-91	90.5	0.3579
92-93	92.5	0.3654
94-95	94.5	0.3635
96-97	96.5	0.3495
98-99	98.5	0.3512
100-102	101	0.3486
104-106	105	0.3438
108-110	109	0.3462
112-114	113	0.3488
116-118	117	0.3722
120-122	121	0.3520
124-126	125	0.3556
128-130	129	0.3299

APPENDIX C

Percent content of gravel (>2000 µm), sand (63-2000 µm), silt (4-63 µm), and clay (<4 µm) fractions for each vibracore interval sampled.

Core ID	Interval (cm)	Midpoint (cm)	% Gravel	% Sand	% Silt	% Clay
MANG1	0-1	0.5	28.69	52.73	15.06	3.52
	2-3	2.5	7.02	71.88	17.41	3.69
	5-6	5.5	0.85	83.89	12.93	2.33
	6-7	6.5	10.65	71.26	15.50	2.59
	7-8	7.5	5.16	73.14	18.76	2.94
	8-9	8.5	0.71	77.73	18.51	3.05
	10-11	10.5	0.89	74.42	21.25	3.44
	15-16	15.5	1.33	69.27	25.11	4.29
	20-21	20.5	0.84	69.23	25.43	4.51
	25-26	25.5	0.22	73.52	21.73	4.53
	30-31	30.5	0.63	81.68	15.09	2.60
	35-36	35.5	1.58	76.99	18.42	3.01
	37-38	37.5	1.67	72.93	21.89	3.52
	40-41	40.5	1.37	79.85	15.90	2.88
	42-43	42.5	1.34	86.05	10.44	2.16
	45-46	45.5	1.25	88.52	8.27	1.96
	47-48	47.5	0.18	88.16	9.77	1.90
	48-49	48.5	0.46	89.33	8.39	1.81
N1	0-1	0.5	10.58	84.12	3.99	1.31
	2-3	2.5	22.24	67.86	7.02	2.88
	3-4	3.5	23.48	69.23	4.96	2.33
	8-9	8.5	3.63	84.88	9.03	2.46
	13-14	13.5	0.15	89.41	8.77	1.67
	17-18	17.5	3.52	89.64	5.32	1.51
	19-20	19.5	0.31	92.01	5.88	1.81
	21-22	21.5	0.63	96.15	3.01	0.22
	25-26	25.5	0.22	96.02	3.54	0.21
	29-30	29.5	0.93	95.86	2.99	0.22
	34-35	34.5	0.00	100.00	0.00	0.00
	35-36	35.5	0.30	46.05	49.48	4.16
	38-39	38.5	1.35	70.18	23.07	5.41
	42-43	42.5	1.50	77.68	18.56	2.27
	46-47	46.5	0.83	70.74	23.79	4.64
	48-49	48.5	1.46	84.00	12.66	1.88

	49-50	49.5	6.46	47.88	31.87	13.79
	50-51	50.5	12.26	57.95	21.82	7.97
	51-52	51.5	1.12	81.83	11.79	5.26
	52-53	52.5	7.42	70.87	11.91	9.80
	53-54	53.5	8.44	59.50	23.11	8.96
	54-55	54.5	23.83	41.83	24.63	9.71
	56-57	56.5	5.91	55.97	25.30	12.82
	60-61	60.5	39.80	34.19	18.49	7.51
	62-63	62.5	53.02	20.28	19.72	6.99
	64-65	64.5	62.26	16.81	14.19	6.74
	65-66	65.5	35.24	24.12	29.86	10.77
	66-67	66.5	23.30	30.88	31.60	14.22
N2	0-1	0.5	1.15	52.14	38.64	8.07
	1-2	1.5	1.15	68.24	24.51	6.09
	2-3	2.5	1.99	67.56	24.01	6.44
	3-4	3.5	1.06	69.80	23.71	5.44
	4-5	4.5	2.23	73.36	18.74	5.66
	5-6	5.5	1.82	72.86	19.17	6.15
	6-7	6.5	2.59	77.53	14.92	4.96
	7-8	7.5	3.19	74.46	16.39	5.96
	8-9	8.5	0.47	84.07	11.80	3.66
	9-10	9.5	1.19	80.26	13.48	5.06
	10-11	10.5	2.09	84.60	8.77	4.54
	11-12	11.5	1.68	87.51	6.75	4.07
	12-13	12.5	1.26	88.78	6.64	3.32
	13-14	13.5	1.49	91.05	4.49	2.98
	14-15	14.5	1.15	98.85	0.00	0.00
	15-16	15.5	2.09	87.85	7.30	2.76
	16-17	16.5	1.19	77.19	16.58	5.04
	17-18	17.5	0.84	73.80	20.13	5.23
	18-19	18.5	0.13	76.84	18.32	4.71
	19-20	19.5	2.21	76.03	17.54	4.22
	20-21	20.5	0.74	75.96	18.87	4.43
	21-22	21.5	1.24	77.88	16.83	4.05
	22-23	22.5	5.40	73.02	17.45	4.13
	23-24	23.5	0.99	71.14	23.12	4.76
	24-25	24.5	1.10	73.76	20.49	4.66
	25-26	25.5	9.27	63.60	22.40	4.73
	26-27	26.5	4.73	72.99	18.71	3.57
	27-28	27.5	0.69	73.44	21.41	4.45
	28-29	28.5	0.33	75.55	19.84	4.28

29-30	29.5	0.52	81.40	14.56	3.52
30-31	30.5	1.27	86.99	8.80	2.94
31-32	31.5	0.37	95.04	3.18	1.41
32-33	32.5	0.28	96.85	2.54	0.33
33-34	33.5	0.00	98.58	1.42	0.00
34-35	34.5	0.00	98.76	1.18	0.06
35-36	35.5	0.15	99.85	0.00	0.00
36-37	36.5	0.01	99.99	0.00	0.00
37-38	37.5	0.00	100.00	0.00	0.00
38-39	38.5	0.00	100.00	0.00	0.00
39-40	39.5	0.00	100.00	0.00	0.00
40-41	40.5	0.03	99.97	0.00	0.00
41-42	41.5	0.03	99.97	0.00	0.00
42-43	42.5	0.08	98.04	0.70	1.19
43-44	43.5	0.00	95.63	2.31	2.06
44-45	44.5	0.07	97.52	0.72	1.69
45-46	45.5	0.00	98.06	0.52	1.42
46-47	46.5	0.13	94.06	2.57	3.24
47-48	47.5	0.00	94.11	2.72	3.17
48-49	48.5	0.00	93.63	2.52	3.85
49-50	49.5	0.00	96.35	0.82	2.83
50-51	50.5	0.00	94.60	2.11	3.29
51-52	51.5	0.00	93.21	2.66	4.12
52-53	52.5	0.00	93.36	2.61	4.03
53-54	53.5	0.00	94.61	2.58	2.80
54-55	54.5	0.00	93.76	2.88	3.36
55-56	55.5	0.00	94.70	2.65	2.64
56-57	56.5	0.00	94.73	2.52	2.75
57-58	57.5	0.00	97.13	1.17	1.70
58-59	58.5	0.00	97.69	0.65	1.67
59-60	59.5	0.00	95.80	2.35	1.85
60-61	60.5	0.00	97.44	0.65	1.91
61-62	61.5	0.00	95.76	2.16	2.08
62-63	62.5	0.00	95.46	2.44	2.11
63-64	63.5	0.00	96.69	1.09	2.22
64-65	64.5	0.00	97.45	0.63	1.92
65-66	65.5	0.00	96.78	1.17	2.06
66-67	66.5	0.00	94.70	2.48	2.83
67-68	67.5	0.00	94.70	2.63	2.67
68-69	68.5	0.00	97.68	0.43	1.89
69-70	69.5	0.00	93.11	4.02	2.87
70-71	70.5	0.00	93.54	2.97	3.49

	71-72	71.5	0.00	94.85	0.90	4.24
	72-73	72.5	0.00	95.46	0.86	3.68
	73-74	73.5	0.00	81.16	9.26	9.58
	74-75	74.5	0.00	95.84	0.69	3.47
	75-76	75.5	0.00	89.42	3.33	7.25
	76-77	76.5	0.00	92.54	2.48	4.98
	77-78	77.5	0.00	94.81	0.87	4.32
	78-79	78.5	0.00	95.25	0.80	3.95
	79-80	79.5	0.00	96.08	0.71	3.21
	80-81	80.5	0.00	67.20	13.97	18.83
	85-86	85.5	0.00	81.43	5.67	12.90
	89-90	89.5	0.00	79.50	7.50	13.01
	90-91	90.5	0.00	83.67	6.97	9.36
	95-96	95.5	0.00	76.35	13.51	10.14
	100-102	101	0.00	77.71	12.07	10.22
	102-104	103	0.00	83.74	9.20	7.06
	108-110	109	0.00	69.43	16.90	13.66
	112-114	113	0.00	79.21	12.11	8.68
	116-118	117	0.00	82.32	10.01	7.68
	120-122	121	0.00	69.43	16.94	13.63
N3-1	0-1	0.5	16.23	74.46	4.97	4.34
	4-5	4.5	2.07	97.93	0.00	0.00
	5-6	5.5	2.46	97.54	0.00	0.00
	11-12	11.5	2.96	97.04	0.00	0.00
	12-13	12.5	14.34	85.66	0.00	0.00
	16-17	16.5	14.22	85.78	0.00	0.00
	23-24	23.5	2.71	81.80	11.41	4.08
	24-25	24.5	0.72	83.38	11.07	4.82
	26-27	26.5	0.27	86.28	9.29	4.16
	27-28	27.5	0.62	91.36	4.72	3.31
	28-29	28.5	0.26	78.22	15.86	5.66
	30-31	30.5	1.25	78.01	15.73	5.01
	31-32	31.5	0.36	85.17	11.27	3.20
	35-36	35.5	0.04	99.96	0.00	0.00
	37-38	37.5	0.50	96.66	2.64	0.21
	38-39	38.5	2.34	74.44	17.97	5.25
	40-41	40.5	5.37	53.17	32.76	8.69
	41-42	41.5	0.34	56.29	34.63	8.74
	44-45	44.5	9.12	67.04	19.92	3.92
	45-46	45.5	7.03	58.78	29.02	5.18
	49-50	49.5	0.18	94.10	5.31	0.40

	54-55	54.5	0.10	99.90	0.00	0.00
	61-62	61.5	0.36	99.64	0.00	0.00
	62-63	62.5	0.42	96.29	2.95	0.33
	64-65	64.5	5.59	75.59	16.77	2.05
	65-66	65.5	0.90	79.24	16.99	2.86
	66-67	66.5	0.12	96.06	3.41	0.40
	67-68	67.5	0.64	99.36	0.00	0.00
	72-73	72.5	10.44	88.59	0.81	0.16
	77-78	77.5	0.07	96.23	3.37	0.33
	82-83	82.5	0.00	97.25	2.66	0.09
	87-88	87.5	8.18	79.16	11.06	1.59
	91-92	91.5	3.16	49.62	40.06	7.16
	93-94	93.5	6.72	35.06	48.37	9.85
	96-97	96.5	2.79	14.77	69.66	12.78
	100-102	101	36.32	30.00	27.85	5.83
	102-104	103	1.18	72.98	17.97	7.87
	108-110	109	0.45	68.85	19.46	11.24
	114-116	115	0.10	78.80	12.19	8.90
	120-122	121	0.07	62.79	20.63	16.51
	124-126	125	0.00	82.18	11.33	6.50
	130-132	131	0.03	88.57	6.76	4.65
	134-136	135	1.11	78.75	12.83	7.31
	140-142	141	0.34	89.57	5.97	4.11
N6	0-1	0.5	59.43	29.32	8.42	2.83
	3-4	3.5	46.64	37.05	11.91	4.40
	5-6	5.5	73.10	19.32	4.69	2.90
	10-11	10.5	71.26	10.63	13.71	4.41
	15-16	15.5	63.62	15.60	14.67	6.11
	18-19	18.5	53.21	20.59	18.87	7.33
	19-20	19.5	70.08	9.84	14.91	5.17
	24-25	24.5	6.56	66.95	21.85	4.63
	29-30	29.5	4.87	67.84	20.11	7.17
	31-32	31.5	5.66	68.61	20.67	5.05
	32-33	32.5	22.49	61.28	13.27	2.96
	33-34	33.5	0.57	92.25	4.91	2.28
	35-36	35.5	2.38	87.34	7.99	2.28
	38-39	38.5	0.00	100.00	0.00	0.00
	44-45	44.5	0.16	99.21	0.46	0.16
	49-50	49.5	3.34	93.78	2.65	0.23
	54-55	54.5	0.38	95.52	3.41	0.69

N7	0-1	0.5	44.29	17.20	29.98	8.54
	5-6	5.5	66.95	16.71	12.12	4.23
	8-9	8.5	54.75	14.29	22.68	8.28
	10-11	10.5	45.86	15.51	27.79	10.84
	15-16	15.5	44.19	10.24	31.29	14.28
	20-21	20.5	49.98	19.07	22.31	8.64
	24-25	24.5	51.07	16.64	24.69	7.61
	26-27	26.5	61.62	13.32	19.38	5.68
	30-31	30.5	17.78	32.14	39.51	10.56
	33-34	33.5	14.06	41.53	34.89	9.52
	37-38	37.5	23.64	46.57	26.22	3.57
	40-41	40.5	1.80	66.76	27.37	4.07
	44-45	44.5	1.33	75.32	20.16	3.18
	49-50	49.5	0.30	64.47	30.39	4.84
	54-55	54.5	0.12	49.11	42.68	8.10
	59-60	59.5	0.19	68.62	26.78	4.41
	64-65	64.5	0.01	73.91	21.85	4.23
	67-68	67.5	0.11	74.58	20.86	4.44
	70-71	70.5	0.34	80.72	16.11	2.84
	73-74	73.5	1.59	82.94	13.05	2.42
	78-79	78.5	0.12	89.06	8.79	2.03
	84-85	84.5	0.02	81.00	15.84	3.14
	89-90	89.5	0.40	83.78	13.13	2.68
	94-95	94.5	0.73	83.34	12.30	3.64
	97-98	97.5	0.65	90.59	6.30	2.46
	110-112	111	0.99	95.19	2.30	1.52
	120-122	121	0.06	98.73	1.21	0.00
	130-132	131	0.22	96.29	2.96	0.53
	140-142	141	1.33	89.89	5.76	3.02
	150-152	151	0.00	97.10	2.48	0.42
	154-156	155	0.07	89.61	6.44	3.88
	156-158	157	0.00	71.42	19.30	9.28
	160-162	161	0.00	62.12	27.39	10.50
	168-170	169	0.00	51.37	33.00	15.63
	174-176	175	0.00	66.60	21.01	12.39
	178-180	179	0.00	29.14	44.42	26.43
	180-183	181.5	0.00	46.15	33.12	20.73
N12	0-2	1	56.51	10.64	25.98	6.87
	10-12	11	89.78	3.88	4.56	1.77
	26-28	27	87.01	7.21	3.39	2.40
	44-46	45	89.10	5.28	3.69	1.93

	58-60	59	88.66	3.24	5.86	2.25
	64-66	65	69.25	6.77	18.20	5.78
	68-70	69	25.37	17.76	37.67	19.19
	71-72	71.5	4.54	19.41	55.20	20.84
	77-78	77.5	0.87	17.73	61.67	19.73
	84-85	84.5	0.07	35.92	44.58	19.43
	91-92	91.5	0.05	24.59	56.70	18.65
	98-99	98.5	0.23	41.25	42.58	15.94
	106-108	107	1.07	46.00	37.37	15.55
	110-112	111	1.68	49.49	35.94	12.89
	112-114	113	0.34	76.31	17.72	5.63
	114-116	115	0.42	76.33	19.36	3.89
	118-120	119	15.25	67.86	13.07	3.83
	122-124	123	2.19	62.63	27.17	8.01
	126-128	127	0.67	91.88	5.77	1.68
	130-132	131	15.84	60.36	16.95	6.85
	132-134	133	4.04	79.95	10.84	5.16
	134-136	135	5.33	68.18	17.40	9.09
	138-140	139	0.00	56.19	27.04	16.77
	140-142	141	1.56	50.70	32.89	14.85
	142-144	143	2.60	42.94	35.02	19.44
N13	0-1	0.5	0.10	6.87	68.08	24.95
	4-5	4.5	0.00	8.93	70.17	20.90
	9-10	9.5	0.00	9.91	71.11	18.98
	14-15	14.5	0.24	8.97	69.17	21.62
	35-36	35.5	0.52	5.96	65.92	27.61
	55-56	55.5	0.00	6.14	60.78	33.09
	75-76	75.5	0.00	7.39	61.32	31.29
	116-118	117	0.00	10.98	60.71	28.31
	136-138	137	0.00	9.16	63.00	27.84
	156-158	157	0.00	18.19	59.59	22.22
	158-160	159	0.00	8.93	66.27	24.80
	160-162	161	0.00	9.68	63.61	26.71
	162-164	163	0.00	6.28	63.20	30.53
	164-166	165	0.00	19.13	57.39	23.48
	166-168	167	0.03	23.63	55.25	21.10
	170-172	171	0.09	37.42	46.94	15.56
	174-176	175	1.04	33.32	49.04	16.59
	176-178	177	0.06	71.35	20.11	8.48
	180-182	181	2.03	64.18	24.64	9.15
	182-184	183	6.17	64.31	22.12	7.39

N15	0-1	0.5	0.00	30.45	44.28	25.28
	3-4	3.5	0.00	34.04	43.30	22.66
	7-8	7.5	0.11	40.59	38.44	20.86
	11-12	11.5	0.48	49.65	33.33	16.55
	14-15	14.5	1.41	63.08	23.07	12.44
	18-20	19	1.82	49.46	32.48	16.23
	28-30	29	0.14	40.58	40.52	18.76
	36-38	37	0.36	64.08	22.61	12.95
	44-46	45	1.13	55.42	28.16	15.29
	50-51	50.5	0.51	65.60	21.99	11.90
	52-53	52.5	1.44	74.36	16.28	7.92
	55-56	55.5	0.39	84.16	10.53	4.92
	60-61	60.5	0.20	92.14	4.46	3.20
	63-64	63.5	0.59	93.75	3.95	1.72
	65-66	65.5	12.87	77.85	6.16	3.12
	69-70	69.5	20.61	66.65	7.79	4.95
	72-73	72.5	11.44	65.72	15.43	7.42
	75-76	75.5	1.60	98.40	0.00	0.00
	80-81	80.5	1.15	98.85	0.00	0.00
	85-86	85.5	0.00	100.00	0.00	0.00
	90-91	90.5	1.34	98.66	0.00	0.00
	97-98	97.5	4.93	95.07	0.00	0.00
	100-102	101	0.00	100.00	0.00	0.00
	102-105	103.5	3.06	84.60	8.66	3.69
N15-1	0-1	0.5	0.00	20.69	55.77	23.54
	5-6	5.5	0.00	26.38	52.51	21.11
	10-11	10.5	0.87	37.69	41.93	19.51
	15-16	15.5	0.47	29.79	48.61	21.13
	20-21	20.5	2.43	29.94	47.37	20.26
	25-26	25.5	0.49	28.47	46.96	24.09
	35-36	35.5	0.95	43.15	38.17	17.72
	45-46	45.5	0.93	34.96	44.67	19.45
	55-56	55.5	2.24	42.23	36.78	18.74
	60-61	60.5	0.59	48.98	33.48	16.96
	63-64	63.5	0.74	52.17	31.86	15.23
	64-65	64.5	0.27	49.70	34.28	15.75
	66-67	66.5	0.46	42.69	38.19	18.67
	69-70	69.5	0.47	59.52	26.80	13.21
	74-75	74.5	0.00	87.51	8.41	4.08
	77-78	77.5	0.81	80.35	14.15	4.69

	80-81	80.5	1.51	72.55	19.18	6.77
	83-84	83.5	0.82	82.50	12.25	4.43
	86-87	86.5	3.21	82.16	11.62	3.01
	87-88	87.5	0.48	90.64	6.01	2.87
	88-89	88.5	0.35	94.32	3.36	1.97
	89-90	89.5	0.02	91.03	5.87	3.09
	91-92	91.5	7.42	78.18	10.64	3.76
	92-93	92.5	19.11	55.56	18.14	7.19
	93-94	93.5	0.64	67.19	22.76	9.41
	94-95	94.5	4.75	68.33	19.63	7.29
	95-96	95.5	9.29	63.22	21.69	5.79
	96-97	96.5	14.97	58.57	19.00	7.46
	97-98	97.5	15.73	70.48	8.76	5.03
	98-99	98.5	23.14	64.43	8.78	3.65
	99-100	99.5	28.96	59.37	8.62	3.06
	100-102	101	2.27	79.78	14.26	3.69
	102-104	103	5.01	73.91	17.26	3.83
	110-112	111	0.00	100.00	0.00	0.00
	120-122	121	0.00	100.00	0.00	0.00
	130-132	131	0.00	100.00	0.00	0.00
	140-142	141	0.00	100.00	0.00	0.00
	150-152	151	0.00	100.00	0.00	0.00
	160-162	161	0.00	100.00	0.00	0.00
	166-168	167	0.00	100.00	0.00	0.00
	168-170	169	0.34	88.25	6.38	5.04
N17	0-1	0.5	0.00	70.01	21.77	8.22
	2-3	2.5	0.07	76.88	14.29	8.75
	3-4	3.5	0.17	61.78	29.51	8.54
	4-5	4.5	0.35	51.16	35.75	12.73
	5-6	5.5	0.14	63.08	27.30	9.48
	7-8	7.5	1.05	50.34	34.64	13.96
	9-10	9.5	0.99	55.33	32.47	11.21
	11-12	11.5	0.70	61.56	26.74	11.00
	12-13	12.5	0.95	50.23	35.68	13.14
	13-14	13.5	0.30	9.81	61.35	28.55
	17-18	17.5	3.34	12.01	56.37	28.28
	21-22	21.5	2.70	63.17	22.91	11.22
	25-26	25.5	4.47	46.55	37.11	11.86
	27-28	27.5	3.16	37.08	42.50	17.26
	28-29	28.5	2.09	34.42	47.60	15.90
	30-31	30.5	0.54	68.70	22.85	7.91

	32-33	32.5	2.70	81.29	10.97	5.03
	35-36	35.5	9.91	65.61	15.60	8.88
	39-40	39.5	0.01	93.25	3.62	3.12
	45-46	45.5	0.11	92.61	3.63	3.65
	50-51	50.5	0.01	66.19	18.57	15.23
	55-56	55.5	0.06	92.73	3.92	3.29
	60-61	60.5	0.00	69.02	17.88	13.11
	65-66	65.5	0.00	76.55	12.10	11.35
	70-71	70.5	0.00	87.45	6.37	6.18
	75-76	75.5	0.00	72.68	10.15	17.16
	81-82	81.5	0.00	66.08	13.17	20.75
	86-87	86.5	0.00	81.28	7.46	11.27
	91-92	91.5	0.00	51.23	23.71	25.05
N19	0-1	0.5	1.09	53.25	31.28	14.37
	2-3	2.5	0.12	73.86	17.81	8.21
	4-5	4.5	4.92	55.55	27.22	12.31
	7-8	7.5	2.06	72.10	18.70	7.15
	8-9	8.5	2.25	54.38	31.45	11.93
	10-11	10.5	0.90	51.60	33.16	14.34
	13-14	13.5	0.78	66.89	24.40	7.94
	19-20	19.5	1.39	64.46	24.74	9.41
	21-22	21.5	2.32	74.53	16.21	6.94
	22-23	22.5	4.18	68.13	18.61	9.08
	23-24	23.5	6.81	56.84	24.33	12.02
	24-25	24.5	7.36	68.30	16.85	7.49
	25-26	25.5	3.13	75.56	14.72	6.59
	29-30	29.5	1.24	62.14	27.27	9.34
	34-35	34.5	2.02	54.34	34.07	9.57
	40-41	40.5	1.57	54.91	36.38	7.15
	41-42	41.5	4.99	50.17	38.96	5.88
	42-43	42.5	1.43	63.75	30.24	4.57
	43-44	43.5	2.99	65.21	26.36	5.44
	44-45	44.5	1.71	65.53	26.07	6.69
	47-48	47.5	1.93	56.05	32.89	9.13
	50-51	50.5	0.94	71.57	20.16	7.33
	54-55	54.5	1.18	69.05	21.92	7.85
	55-56	55.5	0.15	83.66	11.04	5.15
	60-61	60.5	12.80	75.68	7.12	4.40
	65-66	65.5	1.10	86.02	7.81	5.06
	70-71	70.5	0.89	85.27	8.22	5.62
	75-76	75.5	0.30	90.78	4.68	4.25

	80-81	80.5	0.54	93.14	3.06	3.26
	85-86	85.5	0.08	90.11	4.66	5.15
	90-91	90.5	0.35	86.02	6.78	6.85
	92-93	92.5	0.01	94.23	3.17	2.59
N20	0-1	0.5	0.15	34.85	50.12	14.89
	2-3	2.5	0.00	32.82	50.21	16.98
	4-5	4.5	0.73	37.25	46.61	15.40
	6-7	6.5	0.37	34.26	49.67	15.70
	8-9	8.5	0.00	36.21	47.40	16.39
	10-11	10.5	0.00	39.38	46.90	13.71
	14-15	14.5	1.73	39.52	44.58	14.17
	18-19	18.5	2.33	36.24	46.90	14.53
	24-25	24.5	0.20	43.15	42.83	13.82
	30-31	30.5	1.11	43.32	42.62	12.95
	36-37	36.5	2.22	49.51	36.42	11.86
	37-38	37.5	0.01	60.18	27.75	12.07
	38-39	38.5	0.24	55.36	29.21	15.19
	39-40	39.5	1.32	65.14	19.83	13.71
	40-41	40.5	0.12	68.02	17.58	14.28
N21	0-1	0.5	0.67	36.74	43.04	19.55
	2-3	2.5	1.50	39.16	42.67	16.67
	5-6	5.5	2.84	41.42	40.81	14.93
	9-10	9.5	7.64	43.13	38.18	11.05
	14-15	14.5	1.72	49.87	37.11	11.31
	19-20	19.5	2.05	43.20	41.95	12.79
	25-26	25.5	4.24	47.35	39.03	9.38
	30-31	30.5	8.29	48.87	31.43	11.41
	35-36	35.5	6.35	54.10	29.48	10.07
	36-37	36.5	5.32	46.30	35.86	12.52
	37-38	37.5	6.15	49.45	34.15	10.25
	40-41	40.5	3.64	55.05	31.66	9.66
	43-44	43.5	2.13	63.51	25.93	8.44
	47-48	47.5	1.43	74.44	18.32	5.81
	48-49	48.5	0.00	96.01	3.62	0.38
	51-52	51.5	0.84	92.36	6.02	0.77
	54-55	54.5	3.63	82.84	11.89	1.64
	55-56	55.5	14.89	66.69	15.96	2.46
	57-58	57.5	18.14	68.81	11.58	1.48
	58-59	58.5	7.63	78.23	12.55	1.60
	60-61	60.5	0.19	91.84	7.34	0.63

	62-63	62.5	0.33	88.91	9.86	0.91
	65-66	65.5	0.00	95.54	4.26	0.20
	69-70	69.5	0.00	100.00	0.00	0.00
	74-75	74.5	0.02	95.26	4.34	0.37
	79-80	79.5	1.00	94.94	3.84	0.23
	80-81	80.5	0.82	95.85	3.16	0.17
	84-85	84.5	0.41	74.64	21.54	3.41
	89-90	89.5	0.95	66.07	28.27	4.71
	93-94	93.5	3.42	57.55	33.69	5.34
	94-95	94.5	3.32	50.28	39.26	7.14
	98-99	98.5	24.74	50.15	20.25	4.86
	100-102	101	4.16	72.11	17.05	6.68
	102-104	103	0.80	83.91	10.42	4.87
	108-110	109	0.05	82.14	13.39	4.42
	116-118	117	0.01	83.20	12.30	4.49
	122-124	123	0.25	84.33	10.94	4.49
	128-130	129	0.18	89.03	7.11	3.67
N30	0-1	0.5	0.35	75.98	14.98	8.69
	2-3	2.5	0.46	76.48	14.57	8.49
	4-5	4.5	0.50	79.65	12.97	6.88
	9-10	9.5	0.56	79.34	12.94	7.17
	15-16	15.5	1.25	74.11	17.51	7.13
	18-19	18.5	8.76	69.98	14.43	6.83
	22-23	22.5	6.92	73.81	14.02	5.25
	23-24	23.5	13.96	67.78	12.11	6.16
	25-26	25.5	21.10	63.41	10.05	5.44
	27-28	27.5	7.39	65.10	17.65	9.86
	28-29	28.5	5.16	59.86	22.37	12.61
	33-34	33.5	1.43	60.90	25.24	12.42
	39-40	39.5	4.72	57.60	24.97	12.72
	44-45	44.5	2.58	59.98	25.07	12.37
	50-51	50.5	5.29	54.60	27.54	12.57
	57-58	57.5	3.42	58.87	24.40	13.32
	65-66	65.5	1.75	46.32	34.57	17.35
	74-75	74.5	9.82	42.73	30.95	16.50
	84-85	84.5	1.94	59.56	24.93	13.57
	90-91	90.5	3.46	63.11	21.85	11.57
	96-97	96.5	6.32	52.47	27.17	14.04
	102-104	103	1.90	60.38	22.91	14.81
	108-110	109	0.39	61.68	23.66	14.27
	116-118	117	0.43	50.11	31.16	18.29

	122-124	123	0.67	43.09	40.42	15.82
	124-126	125	1.51	39.44	44.63	14.42
	126-128	127	0.87	50.65	33.74	14.75
	128-130	129	1.22	38.86	44.56	15.37
	130-132	131	3.43	48.22	32.57	15.78
	132-134	133	0.66	45.70	37.35	16.29
	134-136	135	0.61	60.70	26.64	12.05
	136-138	137	1.05	53.00	32.77	13.18
	142-144	143	0.61	40.20	42.97	16.21
	150-152	151	0.00	46.01	39.44	14.56
	154-156	155	2.16	58.42	30.06	9.36
	158-160	159	0.88	39.06	49.46	10.59
	162-164	163	0.47	44.84	46.31	8.38
	168-170	169	0.00	36.97	52.84	10.20
	178-180	179	0.07	39.35	49.44	11.14
	184-186	185	0.15	30.83	55.74	13.27
	190-192	191	0.00	29.36	54.06	16.58
	200-202	201	0.25	56.05	35.68	8.02
	202-204	203	1.43	61.84	29.89	6.84
	204-206	205	1.44	74.19	19.77	4.60
	206-208	207	0.58	63.71	29.55	6.15
	208-211	209.5	0.65	44.68	45.50	9.17
N31	0-1	0.5	0.40	91.44	4.12	4.04
	3-4	3.5	0.30	93.97	3.48	2.24
	7-8	7.5	0.84	97.88	0.92	0.36
	12-13	12.5	0.82	99.18	0.00	0.00
	18-19	18.5	0.32	95.55	2.41	1.73
	26-27	26.5	4.45	80.50	10.65	4.39
	33-34	33.5	1.00	83.63	9.89	5.48
	34-35	34.5	3.39	70.39	17.69	8.53
	39-40	39.5	2.01	62.85	23.34	11.80
	45-46	45.5	3.27	59.41	24.73	12.59
	52-53	52.5	11.11	57.73	20.18	10.98
	53-54	53.5	7.09	62.24	20.02	10.66
	56-57	56.5	28.25	49.21	14.89	7.65
	58-59	58.5	32.00	44.49	14.96	8.55
	60-61	60.5	18.22	60.47	14.20	7.10
	61-62	61.5	12.24	64.94	15.62	7.20
	69-70	69.5	0.97	60.11	26.17	12.74
	77-78	77.5	2.03	71.66	17.08	9.23
	86-87	86.5	2.11	59.79	25.53	12.57

	95-96	95.5	2.08	62.44	23.44	12.04
	104-106	105	2.11	53.93	29.49	14.47
	114-116	115	3.75	50.72	33.72	11.81
	126-128	127	2.38	53.22	30.56	13.85
	132-134	133	0.54	54.90	28.73	15.82
	136-138	137	1.36	52.93	28.44	17.27
	140-142	141	1.50	50.37	29.76	18.37
	142-144	143	2.40	49.76	30.29	17.55
	148-150	149	3.55	69.29	15.84	11.32
	154-156	155	10.46	67.42	12.37	9.75
	160-162	161	5.83	74.99	10.73	8.45
	166-168	167	3.82	70.88	15.42	9.88
	168-170	169	6.47	70.51	15.28	7.73
	170-172	171	1.85	66.63	22.62	8.90
	172-174	173	4.52	71.22	16.47	7.79
N32	0-1	0.5	0.48	65.81	22.70	11.02
	2-3	2.5	0.33	72.10	19.32	8.25
	4-5	4.5	0.41	73.61	17.85	8.14
	7-8	7.5	0.00	88.43	7.13	4.45
	8-9	8.5	0.20	87.69	7.83	4.28
	10-11	10.5	1.23	89.21	5.81	3.75
	14-15	14.5	9.28	74.35	10.24	6.13
	18-19	18.5	8.00	63.54	19.08	9.38
	23-24	23.5	3.30	69.21	17.37	10.12
	24-25	24.5	5.53	67.80	16.41	10.26
	35-36	35.5	2.96	68.91	17.24	10.89
	45-46	45.5	3.61	69.81	16.49	10.09
	55-56	55.5	2.54	66.07	20.50	10.88
	65-66	65.5	34.25	48.67	10.20	6.88
	75-76	75.5	3.14	50.47	28.91	17.48
	85-86	85.5	3.51	43.22	33.74	19.54
	95-96	95.5	6.73	40.94	32.79	19.54
	106-108	107	3.53	46.87	31.98	17.62
	116-118	117	2.53	40.14	36.16	21.17
	124-126	125	30.89	40.40	16.54	12.17
	132-134	133	6.60	60.04	21.49	11.87
	134-136	135	7.03	51.70	27.49	13.78
	144-146	145	0.00	58.09	28.20	13.71
	154-156	155	3.70	56.43	29.80	10.07
	164-166	165	5.27	55.18	28.58	10.98
	174-176	175	1.00	55.52	32.77	10.70

	184-186	185	0.45	62.13	28.83	8.59
	192-194	193	0.67	56.47	33.94	8.92
	200-202	201	10.40	53.01	31.67	4.93
	202-204	203	0.17	53.29	39.80	6.74
	210-212	211	1.63	63.11	28.29	6.97
	216-218	217	5.83	52.05	35.20	6.92
	220-222	221	25.16	44.66	21.79	8.39
	228-230	229	25.59	49.03	17.74	7.64
	236-238	237	12.90	70.29	11.19	5.61
	242-244	243	21.58	44.78	24.49	9.15
	244-246	245	13.49	43.92	36.98	5.60
	248-250	249	1.10	55.58	38.21	5.10
	252-254	253	2.09	71.93	21.42	4.55
	254-256	255	0.02	86.23	9.67	4.08
	262-264	263	0.25	88.18	6.79	4.78
	270-272	271	0.49	82.82	11.04	5.65
	274-276	275	0.62	86.97	8.10	4.32
	278-280	279	0.69	87.62	8.38	3.32
	284-287	285.5	0.44	83.60	11.20	4.76
N33	0-1	0.5	0.02	44.20	40.01	15.77
	3-4	3.5	1.05	49.43	35.68	13.84
	5-6	5.5	0.28	54.38	32.55	12.79
	7-8	7.5	0.81	60.21	28.05	10.94
	9-10	9.5	0.98	60.47	27.56	10.99
	10-11	10.5	1.63	65.03	23.48	9.86
	15-16	15.5	1.78	58.22	28.09	11.91
	20-21	20.5	1.31	57.57	29.51	11.62
	25-26	25.5	2.00	55.86	29.41	12.72
	30-31	30.5	1.54	61.65	24.50	12.32
	38-39	38.5	3.06	67.30	18.75	10.89
	45-46	45.5	3.54	66.11	18.12	12.23
	56-58	57	3.54	63.14	20.26	13.06
	66-68	67	4.34	68.33	16.30	11.03
	76-78	77	4.92	56.06	23.97	15.05
	78-80	79	4.20	50.81	28.24	16.75
	84-86	85	3.00	49.57	30.93	16.50
	90-92	91	2.40	40.82	36.37	20.41
	94-96	95	2.42	48.64	31.41	17.53
	100-102	101	2.85	44.01	34.40	18.75
	108-110	109	2.11	46.01	33.64	18.25
	118-120	119	0.96	33.92	42.00	23.12

	128-130	129	0.57	24.26	46.43	28.74
	138-140	139	0.79	25.30	44.10	29.82
	148-150	149	4.53	63.32	19.86	12.29
	152-154	153	1.42	49.70	33.65	15.23
	154-156	155	1.16	51.57	33.63	13.65
	158-160	159	3.63	47.93	34.17	14.26
	160-162	161	2.88	52.80	30.60	13.73
	168-170	169	1.51	56.54	30.04	11.92
	178-180	179	2.26	39.63	43.07	15.04
	188-190	189	0.39	48.86	38.13	12.62
	190-192	191	0.68	47.02	39.21	13.09
	192-194	193	0.61	32.27	52.31	14.81
	202-204	203	0.34	25.05	55.77	18.84
	212-214	213	0.00	11.54	62.12	26.34
	224-226	225	0.45	39.73	47.90	11.92
	226-228	227	0.70	30.07	57.06	12.17
	228-230	229	0.28	42.74	47.20	9.79
	230-232	231	0.13	37.28	54.05	8.54
	236-238	237	0.39	31.78	59.89	7.95
	240-242	241	0.10	41.16	51.22	7.53
	244-246	245	1.32	76.61	18.57	3.51
	246-248	247	0.92	88.68	8.39	2.01
	252-254	253	0.96	77.34	17.84	3.86
	254-256	255	0.38	77.48	16.67	5.47
	258-260	259	1.97	68.07	20.18	9.79
	260-262	261	1.46	71.85	17.58	9.11
N34	0-1	0.5	0.31	72.86	17.81	9.02
	3-4	3.5	0.23	66.70	25.61	7.46
	6-7	6.5	0.76	69.13	21.95	8.16
	9-10	9.5	0.82	73.35	18.89	6.94
	12-13	12.5	1.33	71.44	19.26	7.96
	15-16	15.5	1.06	75.79	16.23	6.92
	20-21	20.5	4.75	78.57	11.01	5.68
	21-22	21.5	7.11	76.04	11.29	5.57
	23-24	23.5	10.56	75.22	9.48	4.74
	30-31	30.5	7.31	67.70	16.08	8.91
	35-36	35.5	6.22	65.30	17.90	10.58
	40-41	40.5	13.35	65.20	12.86	8.59
	50-51	50.5	4.03	76.85	11.09	8.03
	60-61	60.5	2.48	76.27	12.31	8.94
	70-71	70.5	7.72	73.96	10.21	8.12

	80-81	80.5	2.31	73.90	13.81	9.98
	90-91	90.5	3.27	65.71	18.42	12.60
	100-102	101	8.88	52.67	25.11	13.33
	110-112	111	11.35	47.50	27.95	13.20
	118-120	119	11.82	40.25	28.44	19.49
	120-122	121	11.77	41.87	28.14	18.22
	128-130	129	27.03	41.36	17.97	13.64
	130-132	131	22.88	45.91	16.84	14.37
	132-134	133	31.00	48.12	11.22	9.66
	138-140	139	44.04	31.08	14.59	10.28
	144-146	145	53.90	22.59	13.54	9.98
	152-154	153	54.75	27.02	10.23	8.00
	154-156	155	31.30	35.06	19.53	14.11
	158-160	159	24.01	37.13	25.09	13.77
	160-162	161	33.48	36.14	19.44	10.93
	168-170	169	39.04	31.06	16.02	13.87
	176-178	177	52.85	19.57	15.96	11.61
	184-186	185	10.55	60.41	19.35	9.69
	186-188	187	22.99	53.98	15.77	7.25
	194-196	195	6.81	68.57	18.00	6.62
	200-202	201	12.11	71.93	11.35	4.61
	204-206	205	8.36	71.02	14.97	5.66
	208-210	209	20.63	59.10	13.86	6.40
	212-214	213	13.02	64.14	15.02	7.82
	218-220	219	22.92	51.10	17.15	8.83
	222-224	223	41.11	33.18	17.64	8.06
	226-228	227	34.96	42.11	16.68	6.24
N36	0-1	0.5	25.42	17.05	33.79	23.74
	3-4	3.5	51.64	18.86	17.19	12.31
	4-5	4.5	46.97	18.40	20.64	13.99
	5-6	5.5	48.22	15.69	21.86	14.23
	8-9	8.5	42.04	21.56	21.52	14.89
	11-12	11.5	29.15	26.03	25.67	19.14
	15-16	15.5	32.23	26.34	23.74	17.69
	19-20	19.5	42.63	23.75	20.46	13.16
	25-26	25.5	46.38	22.29	19.46	11.87
	30-31	30.5	36.19	31.17	19.99	12.64
	35-36	35.5	33.55	37.91	17.86	10.68
	40-41	40.5	28.93	46.42	14.40	10.24
	45-46	45.5	21.67	51.94	17.80	8.59
	46-47	46.5	12.09	55.95	22.59	9.36

	47-48	47.5	13.41	59.02	18.03	9.54
	48-49	48.5	9.56	58.64	24.79	7.01
	49-50	49.5	15.04	57.77	19.91	7.28
	52-53	52.5	31.08	44.91	19.00	5.01
	54-55	54.5	18.53	54.84	20.45	6.18
	55-56	55.5	1.59	71.13	20.70	6.58
	56-57	56.5	1.74	74.76	17.68	5.82
	60-61	60.5	1.71	77.76	14.20	6.34
	62-63	62.5	5.13	60.51	25.02	9.35
	63-64	63.5	3.11	71.14	19.51	6.24
	65-66	65.5	3.92	66.81	23.59	5.68
	66-67	66.5	2.01	72.57	20.16	5.26
	67-68	67.5	0.78	61.16	30.39	7.66
	71-72	71.5	2.94	65.87	24.85	6.34
	76-77	76.5	2.04	70.13	22.25	5.58
	81-82	81.5	0.33	71.96	22.51	5.19
	86-87	86.5	0.12	69.60	24.69	5.59
	94-95	94.5	0.00	75.45	19.52	5.04
	95-96	95.5	0.00	78.87	16.65	4.48
	96-97	96.5	0.00	76.11	18.78	5.11
	99-100	99.5	0.00	91.41	6.91	1.69
	100-102	101	0.05	92.06	6.15	1.73
	102-104	103	0.18	94.48	4.80	0.54
	108-110	109	0.04	98.20	1.76	0.00
	118-120	119	0.00	100.00	0.00	0.00
	124-126	125	0.18	95.63	2.84	1.36
	128-130	129	0.00	98.18	1.82	0.00
	138-140	139	0.07	94.25	3.96	1.71
	148-150	149	0.07	95.78	2.98	1.17
	156-158	157	0.00	98.22	1.78	0.00
	164-166	165	1.53	94.48	3.47	0.52
	176-178	177	2.87	94.07	2.83	0.23
	188-190	189	1.09	98.91	0.00	0.00
	196-198	197	0.04	96.52	2.85	0.59
	202-204	203	4.51	89.97	3.40	2.12
	210-212	211	0.05	93.38	3.16	3.41
	214-216	215	0.01	91.01	3.65	5.34
N37	0-1	0.5	0.87	66.30	21.18	11.65
	3-4	3.5	2.94	76.89	12.80	7.37
	6-7	6.5	0.84	70.60	18.36	10.20
	10-11	10.5	0.72	66.99	19.97	12.33

	14-15	14.5	3.27	72.19	17.59	6.96
	16-17	16.5	2.08	65.85	22.85	9.22
	17-18	17.5	17.40	60.87	14.95	6.78
	18-19	18.5	21.92	51.79	18.99	7.30
	19-20	19.5	34.23	46.16	14.23	5.37
	21-22	21.5	30.09	50.50	12.83	6.58
	23-24	23.5	45.55	30.97	16.09	7.39
	26-27	26.5	40.63	45.24	9.02	5.11
	28-29	28.5	0.01	74.53	20.34	5.12
	29-30	29.5	23.27	52.85	15.87	8.01
	30-31	30.5	0.87	77.16	18.51	3.46
	33-34	33.5	0.25	72.08	23.33	4.34
	36-37	36.5	0.22	74.98	20.00	4.80
	37-38	37.5	10.07	63.01	21.01	5.91
	38-39	38.5	8.55	67.76	17.90	5.79
	39-40	39.5	6.69	63.66	22.44	7.22
	42-43	42.5	5.19	65.13	23.10	6.58
	46-47	46.5	0.78	82.05	13.22	3.95
	51-52	51.5	0.45	84.84	10.12	4.59
	56-57	56.5	2.40	67.41	24.39	5.80
	62-63	62.5	1.55	72.66	19.05	6.73
	68-69	68.5	1.67	65.60	24.04	8.69
	74-75	74.5	0.43	76.29	17.28	5.99
	76-77	76.5	0.79	73.80	19.32	6.09
N39	0-1	0.5	24.82	54.71	11.70	8.77
	2-3	2.5	21.02	62.46	8.44	8.07
	4-5	4.5	27.76	58.73	7.06	6.46
	6-7	6.5	24.18	58.49	10.59	6.74
	8-9	8.5	38.47	46.91	8.65	5.97
	10-11	10.5	37.14	49.53	7.67	5.67
	12-13	12.5	27.06	50.77	14.34	7.84
	14-15	14.5	35.92	45.74	11.40	6.93
	16-17	16.5	38.80	43.04	11.32	6.84
	20-21	20.5	51.07	31.30	10.04	7.59
	24-25	24.5	62.87	21.65	8.43	7.05
	26-27	26.5	27.34	36.17	21.36	15.13
N40	0-1	0.5	0.29	62.26	23.66	13.79
	2-3	2.5	0.07	69.68	20.05	10.19
	4-5	4.5	0.16	64.88	25.50	9.46
	6-7	6.5	0.84	69.43	20.48	9.25

	9-10	9.5	0.12	73.17	18.51	8.20
	12-13	12.5	0.22	71.21	19.94	8.63
	14-15	14.5	0.29	71.15	19.95	8.61
	18-19	18.5	1.94	69.98	18.28	9.80
	24-25	24.5	0.86	77.08	14.45	7.61
	28-29	28.5	3.36	67.11	19.88	9.65
	32-33	32.5	0.43	64.86	23.76	10.96
	35-36	35.5	0.88	64.32	23.98	10.82
	38-39	38.5	2.42	52.30	31.84	13.44
	40-41	40.5	1.89	50.22	33.30	14.58
	41-42	41.5	2.12	47.73	34.82	15.32
	43-44	43.5	1.47	50.70	33.16	14.67
	45-46	45.5	4.28	48.17	32.96	14.59
	46-47	46.5	17.80	38.66	31.30	12.24
	49-50	49.5	34.54	30.57	25.80	9.09
	55-56	55.5	43.68	30.80	17.49	8.03
	58-59	58.5	40.10	40.06	13.08	6.75
	59-60	59.5	32.58	43.05	15.42	8.96
	60-61	60.5	27.76	49.68	14.43	8.13
	63-64	63.5	9.68	70.67	14.18	5.47
	67-68	67.5	6.48	70.77	18.21	4.54
	68-69	68.5	1.33	74.16	20.45	4.06
	71-72	71.5	2.40	79.74	14.23	3.63
	74-75	74.5	1.36	82.01	12.71	3.92
	75-76	75.5	3.90	79.44	12.74	3.92
	80-81	80.5	0.40	88.36	7.16	4.08
	84-85	84.5	0.20	89.93	6.74	3.13
	85-86	85.5	0.10	86.95	7.42	5.53
	87-88	87.5	0.00	92.10	4.03	3.87
	89-90	89.5	0.00	90.62	4.60	4.79
	90-91	90.5	0.00	91.72	4.98	3.31
	94-95	94.5	0.00	91.90	3.19	4.91
	98-99	98.5	0.00	85.15	9.36	5.49
	102-103	102.5	1.49	79.47	13.51	5.53
N41	0-1	0.5	0.56	87.15	8.19	4.09
	2-3	2.5	0.64	90.23	5.82	3.30
	4-5	4.5	1.86	88.89	6.28	2.97
	6-7	6.5	0.82	87.60	7.53	4.04
	9-10	9.5	2.19	83.83	9.10	4.89
	10-11	10.5	0.40	80.16	12.42	7.01
	11-12	11.5	3.20	81.59	9.24	5.98

16-17	16.5	2.81	82.48	8.43	6.28
21-22	21.5	1.03	85.35	7.93	5.70
25-26	25.5	8.82	77.04	8.68	5.45
27-28	27.5	4.18	77.87	11.24	6.71
29-30	29.5	4.43	80.48	9.53	5.57
31-32	31.5	4.54	70.50	16.44	8.52
34-35	34.5	25.26	55.82	13.13	5.80
35-36	35.5	18.42	58.24	18.37	4.97
39-40	39.5	1.01	79.46	15.97	3.56
43-44	43.5	0.46	80.66	13.70	5.19
47-48	47.5	0.30	83.37	12.60	3.73
49-50	49.5	0.10	86.50	10.71	2.69
50-51	50.5	0.83	81.81	12.73	4.63
53-54	53.5	1.71	76.17	16.80	5.32
56-57	56.5	0.74	88.17	7.94	3.15
59-60	59.5	0.39	93.26	4.39	1.97
60-61	60.5	0.26	91.70	6.11	1.94
62-63	62.5	0.45	92.99	4.94	1.62
64-65	64.5	0.25	93.56	4.10	2.09
65-66	65.5	0.23	96.54	2.84	0.39
70-71	70.5	0.07	96.62	2.84	0.46
80-81	80.5	0.17	92.14	6.11	1.58
85-86	85.5	0.03	95.75	2.71	1.51
90-91	90.5	0.03	97.50	2.23	0.23
100-102	101	0.00	98.68	1.32	0.00
104-106	105	0.00	95.92	2.55	1.53
110-112	111	0.18	97.32	2.08	0.42
116-117	116.5	0.00	90.68	5.46	3.86
120-122	121	0.00	96.98	0.88	2.13
124-126	125	0.06	97.71	1.20	1.03
130-133	131.5	0.03	98.32	1.59	0.06

APPENDIX D

Volume Weighted Mean (VWM) and percent content of very coarse sand (1000-2000 µm), coarse sand (500-1000 µm), medium sand (250-500 µm), fine sand (125-250 µm), very fine sand (63-125 µm), silt (4-63 µm), and clay (<4 µm) for each vibracore interval sampled.

Core ID	Interval (cm)	Midpoint (cm)	% Clay	% Silt	% Very Fine Sand	% Fine Sand	% Medium Sand	% Coarse Sand	% Very Coarse Sand	VWM (µm)
MANG1	0-1	0.5	4.93	21.12	9.88	23.46	18.82	11.74	10.05	344.0
	2-3	2.5	3.97	18.73	12.98	31.04	21.64	8.99	2.65	243.7
	5-6	5.5	2.35	13.04	11.45	34.56	26.34	9.07	3.19	272.0
	6-7	6.5	2.90	17.35	12.18	32.46	22.74	8.94	3.42	259.7
	7-8	7.5	3.10	19.79	11.42	30.85	23.66	8.53	2.65	246.5
	8-9	8.5	3.07	18.64	10.97	30.79	23.60	9.77	3.16	261.0
	10-11	10.5	3.47	21.44	10.65	26.46	24.47	11.49	2.03	252.5
	15-16	15.5	4.35	25.45	10.91	22.31	22.14	12.51	2.34	250.0
	20-21	20.5	4.55	25.64	10.08	18.96	20.09	15.62	5.06	296.3
	25-26	25.5	4.54	21.78	8.95	22.45	23.49	14.58	4.20	293.2
	30-31	30.5	2.61	15.18	8.44	26.61	28.41	14.90	3.85	312.7
	35-36	35.5	3.06	18.72	9.19	28.67	27.88	10.85	1.63	256.7
	37-38	37.5	3.58	22.26	9.58	24.88	24.97	12.09	2.64	264.1
	40-41	40.5	2.92	16.12	8.67	29.42	28.24	12.13	2.50	279.1
	42-43	42.5	2.19	10.58	7.21	32.01	32.96	13.03	2.01	296.5
	45-46	45.5	1.99	8.37	6.92	35.23	33.74	11.57	2.18	296.5
	47-48	47.5	1.90	9.79	6.77	38.08	36.54	6.87	0.06	249.2
	48-49	48.5	1.82	8.43	7.17	37.79	35.19	9.06	0.53	265.9
N1	0-1	0.5	1.46	4.46	2.33	27.48	45.17	18.83	0.27	342.8
	2-3	2.5	3.70	9.03	6.56	46.93	32.39	1.39	0.00	210.8
	3-4	3.5	3.05	6.49	3.94	44.47	39.59	2.47	0.00	236.4
	8-9	8.5	2.56	9.37	8.33	51.08	28.17	0.50	0.00	198.9
	13-14	13.5	1.67	8.79	5.01	43.95	37.83	2.76	0.00	232.6
	17-18	17.5	1.57	5.52	2.86	46.79	41.39	1.88	0.00	241.4
	19-20	19.5	1.81	5.90	4.71	53.97	33.14	0.49	0.00	217.1
	21-22	21.5	0.22	3.03	2.69	49.28	43.03	1.75	0.00	250.0
	25-26	25.5	0.21	3.55	4.40	54.18	36.60	1.05	0.00	232.8
	29-30	29.5	0.22	3.02	4.45	54.09	37.14	1.08	0.00	234.7

	34-35	34.5	0.00	0.00	6.64	65.03	28.32	0.01	0.00	216.5
	35-36	35.5	4.18	49.63	14.09	22.83	9.26	0.02	0.00	96.0
	38-39	38.5	5.48	23.38	16.23	40.63	14.23	0.05	0.00	138.5
	42-43	42.5	2.30	18.84	11.05	40.78	25.27	1.76	0.00	184.0
	46-47	46.5	4.68	23.99	6.21	33.53	28.85	2.73	0.00	187.4
	48-49	48.5	1.91	12.85	3.23	40.99	38.52	2.51	0.00	227.8
	49-50	49.5	14.74	34.08	8.24	29.74	13.20	0.01	0.00	110.1
	50-51	50.5	9.08	24.87	7.07	35.71	22.62	0.65	0.00	155.8
	51-52	51.5	5.32	11.92	3.20	39.02	37.79	2.75	0.00	222.8
	52-53	52.5	10.58	12.87	3.83	39.08	32.20	1.44	0.00	195.2
	53-54	53.5	9.78	25.24	6.15	35.00	23.06	0.78	0.00	156.1
	54-55	54.5	12.75	32.34	6.11	29.05	19.07	0.68	0.00	132.3
	56-57	56.5	13.63	26.89	8.76	33.99	16.62	0.12	0.00	129.8
	60-61	60.5	12.47	30.72	12.65	31.11	12.99	0.06	0.00	116.1
	62-63	62.5	14.87	41.97	17.12	21.47	4.57	0.00	0.00	76.4
	64-65	64.5	17.86	37.61	15.08	21.69	7.63	0.13	0.00	85.8
	65-66	65.5	16.64	46.11	14.18	17.61	4.77	0.35	0.34	75.5
	66-67	66.5	18.55	41.20	13.18	21.13	5.95	0.00	0.00	76.0
N2	0-1	0.5	8.17	39.09	15.23	18.60	11.21	6.26	1.45	156.1
	1-2	1.5	6.16	24.80	17.07	29.59	13.82	6.34	2.22	194.2
	2-3	2.5	6.57	24.50	15.31	26.64	13.57	9.84	3.57	229.4
	3-4	3.5	5.50	23.96	16.24	30.55	14.14	7.09	2.52	205.2
	4-5	4.5	5.79	19.17	17.62	34.93	14.94	5.63	1.92	197.2
	5-6	5.5	6.26	19.53	19.44	35.71	14.66	3.37	1.03	171.5
	6-7	6.5	5.09	15.32	16.01	42.27	20.98	0.34	0.00	165.8
	7-8	7.5	6.16	16.93	16.86	35.65	15.76	6.24	2.41	211.2
	8-9	8.5	3.68	11.85	16.40	44.47	19.33	2.75	1.51	200.7
	9-10	9.5	5.12	13.65	15.06	41.81	20.88	2.63	0.84	190.6
	10-11	10.5	4.64	8.96	14.67	44.21	22.75	3.28	1.49	213.5
	11-12	11.5	4.14	6.86	13.55	44.69	25.06	4.00	1.70	229.0
	12-13	12.5	3.36	6.73	11.99	49.74	26.17	1.51	0.50	206.2
	13-14	13.5	0.00	0.00	9.22	52.52	35.92	2.35	0.00	240.1
	14-15	14.5	2.82	7.46	7.09	47.47	32.76	2.30	0.11	220.9
	15-16	15.5	5.10	16.78	12.48	34.10	22.58	6.71	2.25	229.9
	16-17	16.5	5.28	20.30	16.33	29.16	17.00	8.60	3.33	234.8
	17-18	17.5	4.72	18.34	18.02	34.99	18.01	4.51	1.42	194.2
	18-19	18.5	4.32	17.93	17.41	37.57	19.79	2.46	0.51	177.3
	19-20	19.5	4.46	19.01	17.41	36.16	19.39	3.12	0.45	177.2
	20-21	20.5	4.10	17.04	15.98	35.79	21.27	4.82	1.00	201.0
	21-22	21.5	4.36	18.44	14.73	35.07	22.11	4.75	0.52	194.3
	22-23	22.5	4.80	23.35	15.58	32.21	19.10	4.03	0.92	182.0

23-24	23.5	4.71	20.72	16.30	34.42	18.40	4.06	1.40	190.0
24-25	24.5	5.22	24.69	15.69	32.08	16.47	4.17	1.69	184.3
25-26	25.5	3.75	19.64	14.06	31.76	19.77	7.94	3.09	238.6
26-27	26.5	4.48	21.56	16.25	36.81	19.15	1.71	0.04	161.3
27-28	27.5	4.29	19.91	14.94	37.99	20.47	2.04	0.36	173.1
28-29	28.5	3.54	14.64	15.34	42.70	21.98	1.49	0.32	181.2
29-30	29.5	2.98	8.91	13.86	52.01	22.04	0.20	0.00	181.8
30-31	30.5	1.41	3.19	12.00	55.81	27.18	0.41	0.00	205.2
31-32	31.5	0.33	2.55	11.14	55.31	29.75	0.93	0.00	215.9
32-33	32.5	0.00	1.42	11.44	57.10	29.48	0.56	0.00	215.8
33-34	33.5	0.06	1.18	11.31	57.33	29.57	0.55	0.00	216.2
34-35	34.5	0.00	0.00	12.03	59.15	28.48	0.34	0.00	214.5
35-36	35.5	0.00	0.00	12.60	53.16	32.46	1.79	0.00	228.4
36-37	36.5	0.00	0.00	12.83	53.93	31.93	1.31	0.00	225.0
37-38	37.5	0.00	0.00	12.12	52.38	33.27	2.23	0.00	232.4
38-39	38.5	0.00	0.00	13.52	54.24	30.96	1.28	0.00	222.5
39-40	39.5	0.00	0.00	12.46	53.46	32.45	1.63	0.00	227.7
40-41	40.5	0.00	0.00	12.27	54.38	32.22	1.13	0.00	225.1
41-42	41.5	1.19	0.70	12.81	59.13	26.06	0.11	0.00	205.2
42-43	42.5	2.06	2.31	11.94	61.69	22.00	0.01	0.00	194.0
43-44	43.5	1.70	0.72	11.86	56.63	28.53	0.56	0.00	211.7
44-45	44.5	1.42	0.52	11.63	56.63	29.09	0.71	0.00	214.5
45-46	45.5	3.24	2.58	10.09	58.69	25.23	0.17	0.00	199.8
46-47	46.5	3.17	2.72	10.19	52.14	30.27	1.51	0.00	215.3
47-48	47.5	3.02	4.56	8.97	51.85	30.21	1.23	0.16	214.2
48-49	48.5	3.85	2.52	10.43	52.45	29.64	1.11	0.00	211.2
49-50	49.5	2.83	0.82	10.70	54.28	30.23	1.14	0.00	216.5
50-51	50.5	3.29	2.11	11.27	54.09	28.43	0.81	0.00	208.4
51-52	51.5	4.13	2.66	11.74	53.70	27.09	0.67	0.00	202.7
52-53	52.5	4.03	2.61	12.25	53.97	26.53	0.61	0.00	201.2
53-54	53.5	2.80	2.58	12.81	54.58	26.58	0.65	0.00	203.1
54-55	54.5	3.36	2.88	12.38	54.00	26.70	0.68	0.00	202.5
55-56	55.5	2.64	2.65	13.16	55.43	25.73	0.39	0.00	200.2
56-57	56.5	2.75	2.52	12.93	55.79	25.63	0.38	0.00	200.2
57-58	57.5	1.70	1.17	12.84	52.97	29.85	1.47	0.00	217.1
58-59	58.5	1.67	0.65	13.92	52.52	29.76	1.49	0.00	217.0
59-60	59.5	1.85	2.35	12.48	54.85	27.65	0.83	0.00	208.2
60-61	60.5	1.91	0.65	12.64	54.72	29.00	1.09	0.00	214.3
61-62	61.5	2.08	2.16	12.69	55.61	26.93	0.53	0.00	205.2
62-63	62.5	2.11	2.44	11.67	53.90	28.81	1.08	0.00	211.7
63-64	63.5	2.22	1.09	13.56	53.25	28.76	1.12	0.00	212.1
64-65	64.5	1.92	0.63	13.88	52.31	29.82	1.44	0.00	216.5

	65-66	65.5	2.06	1.17	14.56	54.14	27.32	0.76	0.00	207.1
	66-67	66.5	2.83	2.48	13.46	55.28	25.54	0.42	0.00	199.8
	67-68	67.5	2.67	2.63	14.02	55.69	24.67	0.32	0.00	197.3
	68-69	68.5	1.89	0.43	11.62	56.19	29.16	0.71	0.00	213.9
	69-70	69.5	2.87	4.02	14.27	53.93	24.52	0.39	0.00	194.7
	70-71	70.5	3.49	2.97	12.67	53.84	26.52	0.52	0.00	200.8
	71-72	71.5	4.24	0.90	11.33	54.70	28.19	0.63	0.00	207.3
	72-73	72.5	3.68	0.86	11.14	54.33	29.15	0.84	0.00	211.2
	73-74	73.5	9.58	9.26	7.95	44.53	27.40	1.28	0.00	189.4
	74-75	74.5	3.47	0.69	9.60	53.70	31.61	0.93	0.00	218.0
	75-76	75.5	7.25	3.33	9.80	56.35	23.17	0.09	0.00	187.8
	76-77	76.5	4.98	2.48	10.95	53.96	27.23	0.40	0.00	201.1
	77-78	77.5	4.32	0.87	9.98	53.19	30.55	1.09	0.00	214.8
	78-79	78.5	3.95	0.80	9.21	53.72	31.49	0.84	0.00	216.7
	79-80	79.5	3.21	0.71	7.86	51.27	35.14	1.81	0.00	230.5
	80-81	80.5	18.83	13.97	8.34	40.08	18.65	0.13	0.00	144.3
	85-86	85.5	12.90	5.67	12.08	49.97	19.37	0.01	0.00	165.4
	89-90	89.5	13.01	7.50	6.50	46.14	26.41	0.45	0.00	181.7
	90-91	90.5	9.36	6.97	10.61	49.65	23.29	0.12	0.00	178.6
	95-96	95.5	10.14	13.51	13.27	41.94	20.93	0.22	0.00	161.8
	100-102	101	10.22	12.07	7.08	42.74	27.04	0.84	0.00	181.8
	102-104	103	7.06	9.20	6.11	43.51	31.99	2.12	0.00	207.8
	108-110	109	13.66	16.90	9.68	41.33	18.23	0.20	0.00	147.0
	112-114	113	8.68	12.11	6.63	42.56	28.91	1.12	0.00	189.6
	116-118	117	7.68	10.01	6.61	43.31	30.75	1.66	0.00	200.5
	120-122	121	13.63	16.94	9.96	40.01	18.96	0.50	0.00	149.6
N3-1	0-1	0.5	5.18	5.94	5.72	47.32	33.81	2.03	0.00	219.4
	4-5	4.5	0.00	0.00	7.94	57.93	33.40	0.74	0.00	228.6
	5-6	5.5	0.00	0.00	6.43	53.12	37.93	2.53	0.00	246.8
	11-12	11.5	0.00	0.00	5.16	49.85	41.51	3.49	0.00	259.0
	12-13	12.5	0.00	0.00	2.49	36.85	49.97	10.69	0.00	313.2
	16-17	16.5	0.00	0.00	1.29	29.77	53.70	15.23	0.00	344.0
	23-24	23.5	4.20	11.73	8.38	43.76	28.42	2.56	0.96	215.3
	24-25	24.5	4.86	11.15	9.53	41.97	26.73	3.95	1.82	228.9
	26-27	26.5	4.17	9.32	9.40	50.14	26.25	0.73	0.00	193.0
	27-28	27.5	3.33	4.75	9.35	52.29	28.17	1.52	0.59	216.2
	28-29	28.5	5.68	15.90	9.87	36.60	23.84	5.63	2.49	232.1
	30-31	30.5	5.08	15.93	6.63	35.35	29.93	5.91	1.17	231.4
	31-32	31.5	3.21	11.31	4.03	42.50	36.43	2.51	0.00	223.2
	35-36	35.5	0.00	0.00	4.30	57.98	37.16	0.57	0.00	237.2
	37-38	37.5	0.21	2.65	3.16	51.03	41.10	1.85	0.00	247.2

	38-39	38.5	5.38	18.40	6.74	35.87	29.83	3.79	0.00	201.1
	40-41	40.5	9.19	34.63	10.40	24.83	15.61	3.97	1.38	159.9
	41-42	41.5	8.78	34.75	12.39	25.68	13.37	3.54	1.50	154.2
	44-45	44.5	4.32	21.92	12.54	36.56	18.02	3.76	2.88	207.9
	45-46	45.5	5.57	31.21	13.32	26.73	13.74	6.01	3.42	201.9
	49-50	49.5	0.41	5.32	4.98	55.26	33.54	0.49	0.00	220.9
	54-55	54.5	0.00	0.00	4.93	52.09	40.95	2.03	0.00	251.0
	61-62	61.5	0.00	0.00	5.50	53.06	39.62	1.82	0.00	247.1
	62-63	62.5	0.33	2.96	5.20	56.63	34.32	0.56	0.00	226.3
	64-65	64.5	2.17	17.77	7.82	47.63	24.43	0.18	0.00	178.8
	65-66	65.5	2.89	17.15	8.50	48.58	22.77	0.12	0.00	174.4
	66-67	66.5	0.41	3.42	3.96	59.97	32.11	0.14	0.00	220.4
	67-68	67.5	0.00	0.00	2.67	51.00	44.55	1.79	0.00	257.9
	72-73	72.5	0.18	0.90	4.68	51.71	40.66	1.88	0.00	248.1
	77-78	77.5	0.33	3.37	1.22	41.15	50.43	3.51	0.00	272.5
	82-83	82.5	0.09	2.66	0.61	37.20	54.86	4.58	0.00	287.9
	87-88	87.5	1.74	12.05	1.28	33.29	45.89	5.75	0.00	260.0
	91-92	91.5	7.39	41.37	4.40	21.47	22.55	2.82	0.00	146.1
	93-94	93.5	10.56	51.86	5.44	14.47	15.13	2.55	0.00	109.4
	96-97	96.5	13.15	71.66	7.58	4.67	2.52	0.43	0.00	40.1
	100-102	101	9.16	43.73	5.54	20.99	18.39	2.20	0.00	127.8
	102-104	103	7.96	18.19	7.14	33.13	28.37	5.20	0.00	201.0
	108-110	109	11.29	19.55	10.47	36.11	20.01	1.59	0.98	168.8
	114-116	115	8.91	12.20	8.68	44.64	24.90	0.67	0.00	177.9
	120-122	121	16.52	20.64	12.24	31.28	15.70	1.92	1.70	160.1
	124-126	125	6.50	11.33	10.31	49.11	22.69	0.07	0.00	175.0
	130-132	131	4.65	6.76	9.33	51.58	27.25	0.42	0.00	196.3
	134-136	135	7.39	12.97	9.28	46.05	23.97	0.33	0.00	175.6
	140-142	141	4.13	6.00	8.58	51.04	29.55	0.71	0.00	204.6
N6	0-1	0.5	6.97	20.76	13.63	36.31	16.76	2.95	2.61	194.2
	3-4	3.5	8.24	22.32	14.15	36.59	15.73	1.53	1.43	165.2
	5-6	5.5	10.77	17.42	13.99	35.87	15.98	3.10	2.86	195.2
	10-11	10.5	15.33	47.69	11.19	17.62	6.85	0.89	0.43	84.9
	15-16	15.5	16.78	40.33	12.31	20.47	8.12	1.33	0.67	100.1
	18-19	18.5	15.67	40.33	11.59	19.31	8.58	2.79	1.74	124.5
	19-20	19.5	17.29	49.84	11.00	13.88	5.96	1.53	0.51	81.7
	24-25	24.5	4.96	23.39	13.72	29.58	17.14	7.71	3.51	230.6
	29-30	29.5	7.54	21.14	12.75	29.07	17.40	8.25	3.86	237.8
	31-32	31.5	5.36	21.91	13.27	30.69	18.20	7.60	2.98	227.1
	32-33	32.5	3.81	17.12	14.18	34.79	19.62	7.31	3.16	239.5
	33-34	33.5	2.29	4.93	14.21	54.33	22.37	0.95	0.92	204.6

	35-36	35.5	2.34	8.19	15.65	44.92	21.15	4.73	3.03	242.0
	38-39	38.5	0.00	0.00	13.73	59.70	26.14	0.43	0.00	209.3
	44-45	44.5	0.16	0.46	14.45	59.42	23.83	0.43	1.25	218.7
	49-50	49.5	0.24	2.74	14.37	58.43	23.52	0.44	0.26	202.7
	54-55	54.5	0.70	3.42	17.58	59.36	18.94	0.01	0.00	184.4
N7	0-1	0.5	15.33	53.80	13.58	12.03	3.57	1.12	0.56	71.2
	5-6	5.5	12.79	36.67	14.12	20.06	8.92	4.75	2.70	156.1
	8-9	8.5	18.29	50.13	11.56	11.90	4.77	2.09	1.27	89.3
	10-11	10.5	20.02	51.34	10.61	12.20	4.58	0.94	0.32	66.6
	15-16	15.5	25.59	56.07	8.23	7.00	2.10	0.76	0.25	45.3
	20-21	20.5	17.26	44.61	11.92	17.84	7.18	0.82	0.38	85.1
	24-25	24.5	15.55	50.46	12.73	13.30	5.00	2.17	0.79	87.1
	26-27	26.5	14.80	50.49	11.06	11.72	6.52	3.89	1.52	110.9
	30-31	30.5	12.85	48.06	11.76	12.88	7.58	4.63	2.25	132.6
	33-34	33.5	11.08	40.60	12.12	15.04	10.30	7.24	3.61	182.4
	37-38	37.5	4.68	34.33	14.82	17.56	14.54	10.25	3.82	227.1
	40-41	40.5	4.15	27.87	15.71	24.39	16.36	8.28	3.25	223.0
	44-45	44.5	3.23	20.43	15.79	34.68	18.64	4.69	2.54	211.9
	49-50	49.5	4.85	30.49	16.22	26.62	14.11	5.09	2.63	188.9
	54-55	54.5	8.11	42.73	15.45	17.59	9.31	4.78	2.05	148.0
	59-60	59.5	4.42	26.83	14.74	30.12	16.10	4.75	3.04	203.1
	64-65	64.5	4.23	21.85	15.83	36.29	17.54	2.54	1.72	184.4
	67-68	67.5	4.45	20.89	16.09	36.36	17.72	2.85	1.65	186.1
	70-71	70.5	2.85	16.16	14.47	40.27	22.36	2.62	1.27	199.7
	73-74	73.5	2.46	13.27	15.04	40.65	21.93	4.08	2.58	227.5
	78-79	78.5	2.03	8.80	14.32	44.69	24.99	3.33	1.83	227.7
	84-85	84.5	3.14	15.84	15.60	38.35	20.49	4.34	2.23	216.7
	89-90	89.5	2.70	13.19	16.22	41.11	21.10	3.64	2.05	215.9
	94-95	94.5	3.67	12.39	16.07	39.12	20.83	5.24	2.69	231.4
	97-98	97.5	2.47	6.35	14.94	47.92	25.58	1.76	0.98	212.3
	110-112	111	1.54	2.32	12.11	56.19	27.40	0.44	0.00	206.7
	120-122	121	0.00	1.21	10.22	56.11	31.61	0.85	0.00	222.3
	130-132	131	0.53	2.96	13.75	57.31	25.23	0.22	0.00	201.1
	140-142	141	3.06	5.84	17.15	49.05	22.50	1.13	1.27	205.2
	150-152	151	0.42	2.48	18.82	58.76	19.51	0.01	0.00	186.3
	154-156	155	3.88	6.45	25.09	48.85	15.69	0.05	0.00	162.8
	156-158	157	9.28	19.30	20.31	35.69	11.83	1.73	1.88	163.1
	160-162	161	10.50	27.39	17.15	29.53	10.88	2.91	1.65	152.6
	168-170	169	15.63	33.00	17.52	21.80	7.20	3.33	1.53	128.8
	174-176	175	12.39	21.01	16.49	35.94	13.28	0.43	0.46	135.6
	178-180	179	26.43	44.42	10.39	11.94	3.51	2.00	1.31	81.5

	180-183	181.5	20.73	33.12	15.92	21.80	5.82	1.44	1.18	104.0
N12	0-2	1	15.79	59.73	8.04	7.46	5.53	3.08	0.36	77.0
	10-12	11	17.37	44.62	6.84	9.41	8.24	8.72	4.80	187.5
	26-28	27	18.45	26.09	6.80	11.68	10.80	15.04	11.15	330.9
	44-46	45	17.67	33.89	6.98	12.22	10.54	11.56	7.14	251.3
	58-60	59	19.80	51.67	8.31	5.01	4.13	6.78	4.29	148.3
	64-66	65	18.79	59.20	11.89	6.35	2.37	1.15	0.26	53.0
	68-70	69	25.72	50.48	12.46	6.80	2.50	1.46	0.59	60.4
	71-72	71.5	21.84	57.83	12.18	5.95	1.61	0.58	0.02	42.9
	77-78	77.5	19.91	62.21	10.21	4.60	1.79	1.00	0.30	46.8
	84-85	84.5	19.44	44.62	16.95	11.95	4.28	2.04	0.74	85.0
	91-92	91.5	18.66	56.73	12.30	7.44	3.05	1.42	0.39	61.4
	98-99	98.5	15.98	42.68	17.28	15.40	5.02	2.69	0.97	100.1
	106-108	107	15.72	37.78	18.78	18.05	5.46	2.92	1.30	112.7
	110-112	111	13.11	36.55	18.12	19.99	6.78	3.41	2.04	133.9
	112-114	113	5.65	17.78	21.08	39.10	13.21	1.48	1.70	170.1
	114-116	115	3.91	19.44	20.16	38.66	14.78	1.54	1.52	172.5
	118-120	119	4.51	15.42	17.82	43.91	18.24	0.11	0.00	158.9
	122-124	123	8.19	27.78	13.99	32.46	15.54	1.20	0.84	148.0
	126-128	127	1.70	5.81	6.52	47.63	36.25	2.10	0.00	229.8
	130-132	131	8.14	20.14	9.10	36.32	24.97	1.33	0.00	170.5
	132-134	133	5.38	11.30	4.85	40.91	34.87	2.70	0.00	216.6
	134-136	135	9.60	18.38	6.44	40.05	24.89	0.65	0.00	168.9
	138-140	139	16.77	27.04	5.58	32.58	17.85	0.18	0.00	128.4
	140-142	141	15.09	33.41	6.53	27.71	16.75	0.51	0.00	121.1
	142-144	143	19.96	35.96	7.86	21.83	12.78	1.20	0.42	108.8
N13	0-1	0.5	24.98	68.15	4.06	1.34	0.56	0.60	0.32	28.7
	4-5	4.5	20.91	70.17	6.08	2.27	0.57	0.00	0.00	24.5
	9-10	9.5	18.98	71.12	6.82	2.45	0.59	0.05	0.00	26.3
	14-15	14.5	21.67	69.33	5.88	2.33	0.69	0.09	0.00	25.3
	35-36	35.5	27.75	66.26	4.40	1.16	0.43	0.00	0.00	19.5
	55-56	55.5	33.09	60.78	3.93	1.35	0.48	0.37	0.00	20.9
	75-76	75.5	31.29	61.32	4.45	2.11	0.80	0.03	0.00	21.6
	116-118	117	28.31	60.71	7.12	2.75	0.85	0.26	0.00	27.5
	136-138	137	27.84	63.00	5.68	2.49	0.80	0.19	0.00	25.3
	156-158	157	22.22	59.59	8.65	4.43	2.72	2.02	0.38	55.9
	158-160	159	24.80	66.27	5.87	2.03	0.72	0.29	0.01	25.8
	160-162	161	26.71	63.61	4.96	2.72	1.19	0.69	0.11	30.5
	162-164	163	30.53	63.20	2.85	2.31	0.77	0.31	0.04	22.2
	164-166	165	23.48	57.39	6.02	9.72	3.38	0.01	0.00	43.8

	166-168	167	21.10	55.26	8.77	11.00	3.54	0.23	0.10	52.0
	170-172	171	15.57	46.98	11.73	17.28	6.48	1.24	0.73	90.6
	174-176	175	16.77	49.56	12.26	14.42	4.21	1.59	1.20	87.7
	176-178	177	8.48	20.12	23.18	39.25	8.97	0.00	0.00	122.8
	180-182	181	9.34	25.15	20.99	31.38	9.87	1.93	1.34	144.6
	182-184	183	7.88	23.58	21.65	30.31	10.32	4.08	2.18	171.6
N15	0-1	0.5	25.28	44.28	12.19	13.31	3.99	0.61	0.35	66.1
	3-4	3.5	22.66	43.30	13.96	14.23	5.05	0.74	0.06	69.7
	7-8	7.5	20.89	38.48	15.24	18.10	6.00	0.93	0.37	85.9
	11-12	11.5	16.63	33.49	16.79	23.38	8.42	1.07	0.23	102.3
	14-15	14.5	12.62	23.40	16.31	33.66	13.31	0.34	0.35	131.3
	18-20	19	16.53	33.09	14.41	22.87	9.73	2.03	1.34	126.1
	28-30	29	18.78	40.57	14.96	17.18	6.60	1.42	0.48	91.2
	36-38	37	13.00	22.69	14.92	32.21	13.58	1.79	1.80	158.7
	44-46	45	15.46	28.48	16.53	24.78	10.21	2.93	1.61	142.0
	50-51	50.5	11.96	22.10	20.21	33.12	9.83	1.45	1.34	142.7
	52-53	52.5	8.04	16.52	18.27	38.08	14.16	2.70	2.25	184.8
	55-56	55.5	4.94	10.58	20.34	46.74	16.38	0.52	0.51	168.4
	60-61	60.5	3.20	4.47	15.25	56.20	20.81	0.08	0.00	184.3
	63-64	63.5	1.73	3.97	10.29	53.22	28.95	1.32	0.53	219.0
	65-66	65.5	3.58	7.07	10.63	50.67	26.57	1.12	0.36	203.4
	69-70	69.5	6.23	9.82	11.80	42.71	25.35	3.25	0.85	208.4
	72-73	72.5	8.37	17.42	13.29	40.08	19.63	0.75	0.46	164.4
	75-76	75.5	0.00	0.00	9.29	59.54	30.74	0.42	0.00	221.1
	80-81	80.5	0.00	0.00	8.33	58.49	32.55	0.63	0.00	226.2
	85-86	85.5	0.00	0.00	7.21	57.15	34.81	0.84	0.00	232.2
	90-91	90.5	0.00	0.00	5.92	54.95	37.82	1.32	0.00	241.0
	97-98	97.5	0.00	0.00	5.49	56.37	37.18	0.96	0.00	238.4
	100-102	101	0.00	0.00	5.67	59.63	34.15	0.54	0.00	230.7
	102-105	103.5	3.80	8.93	9.15	46.96	27.55	2.36	1.25	220.6
N15-1	0-1	0.5	23.54	55.77	10.68	6.01	2.89	1.11	0.00	49.1
	5-6	5.5	21.11	52.51	13.74	8.96	2.84	0.84	0.01	54.2
	10-11	10.5	19.68	42.30	15.29	16.16	5.43	0.91	0.23	78.8
	15-16	15.5	21.23	48.84	14.40	10.10	3.84	1.47	0.13	65.8
	20-21	20.5	20.77	48.55	14.30	11.14	3.71	1.21	0.33	67.9
	25-26	25.5	24.20	47.19	13.23	10.43	3.27	1.25	0.43	65.6
	35-36	35.5	17.89	38.54	14.46	19.11	7.47	1.92	0.61	101.1
	45-46	45.5	19.63	45.08	15.12	12.82	4.96	2.05	0.33	81.0
	55-56	55.5	19.17	37.63	14.36	19.66	7.45	1.25	0.48	95.4
	60-61	60.5	17.06	33.68	17.01	22.48	7.26	1.75	0.78	108.9

	63-64	63.5	15.34	32.10	16.73	21.76	8.78	3.76	1.53	137.3
	64-65	64.5	15.79	34.38	16.33	19.51	8.72	4.11	1.17	130.6
	66-67	66.5	18.76	38.36	14.61	17.68	6.28	2.90	1.41	112.7
	69-70	69.5	13.27	26.93	16.21	29.76	10.30	1.93	1.61	142.8
	74-75	74.5	4.08	8.41	22.30	53.22	12.00	0.00	0.00	154.3
	77-78	77.5	4.73	14.26	16.07	41.16	18.04	3.42	2.31	207.1
	80-81	80.5	6.87	19.47	17.73	32.84	13.89	6.03	3.17	211.2
	83-84	83.5	4.47	12.35	16.83	43.94	18.29	2.18	1.95	199.3
	86-87	86.5	3.11	12.01	14.66	42.29	21.29	4.26	2.38	225.5
	87-88	87.5	2.88	6.04	16.63	56.43	18.02	0.01	0.00	175.8
	88-89	88.5	1.97	3.37	12.98	62.68	18.99	0.00	0.00	186.2
	89-90	89.5	3.09	5.87	15.76	56.55	18.72	0.01	0.00	177.7
	91-92	91.5	4.07	11.49	14.66	47.07	20.09	1.27	1.37	194.1
	92-93	92.5	8.89	22.43	15.26	33.12	14.70	3.71	1.90	178.6
	93-94	93.5	9.47	22.91	14.37	34.57	15.87	1.93	0.88	157.7
	94-95	94.5	7.66	20.61	14.52	35.23	16.68	3.65	1.66	184.4
	95-96	95.5	6.39	23.91	14.22	30.28	16.45	6.16	2.60	206.4
	96-97	96.5	8.77	22.34	14.59	33.14	15.12	3.63	2.41	186.4
	97-98	97.5	5.97	10.40	13.64	50.27	19.10	0.31	0.33	173.8
	98-99	98.5	4.75	11.43	13.95	42.71	20.78	3.82	2.57	223.3
	99-100	99.5	4.30	12.13	14.51	39.33	19.74	6.58	3.42	245.5
	100-102	101	3.78	14.59	14.46	37.68	19.53	6.50	3.47	242.8
	102-104	103	4.03	18.17	13.11	33.97	20.31	7.27	3.16	239.6
	110-112	111	0.00	0.00	5.56	59.50	34.38	0.56	0.00	231.2
	120-122	121	0.00	0.00	2.98	61.68	35.19	0.15	0.00	232.5
	130-132	131	0.00	0.00	6.45	69.26	24.29	0.00	0.00	209.8
	140-142	141	0.00	0.00	5.03	67.15	27.81	0.01	0.00	217.1
	150-152	151	0.00	0.00	4.10	64.94	30.92	0.05	0.00	223.5
	160-162	161	0.00	0.00	5.21	67.39	27.39	0.01	0.00	216.2
	166-168	167	0.00	0.00	6.48	67.88	25.63	0.01	0.00	212.2
	168-170	169	5.05	6.40	13.02	57.96	17.56	0.01	0.00	173.3
N17	0-1	0.5	8.22	21.77	16.31	38.36	15.24	0.11	0.00	138.5
	2-3	2.5	8.76	14.30	18.92	42.91	15.10	0.01	0.00	146.0
	3-4	3.5	8.55	29.56	16.43	33.09	11.56	0.23	0.57	127.0
	4-5	4.5	12.78	35.88	15.76	26.90	8.69	0.01	0.00	97.2
	5-6	5.5	9.49	27.34	16.78	34.30	12.08	0.01	0.00	121.1
	7-8	7.5	14.11	35.01	16.63	26.38	7.86	0.02	0.00	94.1
	9-10	9.5	11.32	32.79	16.73	29.91	9.23	0.01	0.00	104.4
	11-12	11.5	11.08	26.93	17.08	33.52	11.39	0.01	0.00	117.5
	12-13	12.5	13.27	36.03	16.28	26.46	7.96	0.02	0.00	94.3
	13-14	13.5	28.63	61.53	6.22	2.61	0.95	0.06	0.00	24.9

	17-18	17.5	29.25	58.32	7.38	3.34	1.32	0.39	0.00	30.4
	21-22	21.5	11.53	23.55	16.98	35.06	12.86	0.02	0.00	125.1
	25-26	25.5	12.42	38.85	13.62	24.08	9.99	0.73	0.33	105.8
	27-28	27.5	17.83	43.88	13.51	16.67	5.54	1.54	1.04	94.2
	28-29	28.5	16.24	48.61	11.54	14.38	6.22	2.20	0.81	93.0
	30-31	30.5	7.95	22.98	16.88	37.52	14.52	0.15	0.00	135.5
	32-33	32.5	5.17	11.28	18.25	47.36	17.92	0.02	0.00	162.5
	35-36	35.5	9.86	17.32	19.96	40.22	12.63	0.01	0.00	134.2
	39-40	39.5	3.12	3.62	16.16	54.87	21.83	0.40	0.00	188.4
	45-46	45.5	3.66	3.63	17.34	55.19	20.09	0.09	0.00	181.8
	50-51	50.5	15.23	18.57	24.11	34.68	7.41	0.00	0.00	110.5
	55-56	55.5	3.29	3.93	16.29	55.39	20.94	0.17	0.00	184.8
	60-61	60.5	13.11	17.88	24.25	36.71	8.05	0.00	0.00	116.2
	65-66	65.5	11.35	12.10	18.99	40.66	14.97	0.90	1.02	162.2
	70-71	70.5	6.18	6.37	20.22	52.75	14.46	0.01	0.00	160.2
	75-76	75.5	17.16	10.15	18.67	43.33	10.68	0.01	0.00	129.9
	81-82	81.5	20.75	13.17	18.19	33.36	10.22	2.23	2.09	156.4
	86-87	86.5	11.27	7.46	15.59	49.01	16.62	0.06	0.00	157.6
	91-92	91.5	25.05	23.71	13.90	25.43	8.72	1.79	1.40	122.0
N19	0-1	0.5	14.53	31.63	10.77	28.24	14.22	0.61	0.00	117.4
	2-3	2.5	8.22	17.83	10.82	39.01	22.19	1.43	0.50	174.0
	4-5	4.5	12.95	28.63	11.46	32.65	14.24	0.07	0.00	121.4
	7-8	7.5	7.30	19.09	10.45	40.16	22.33	0.68	0.00	164.3
	8-9	8.5	12.21	32.17	11.52	30.75	13.30	0.05	0.00	115.6
	10-11	10.5	14.47	33.46	11.52	28.50	11.96	0.09	0.00	107.5
	13-14	13.5	8.00	24.59	10.10	37.23	19.77	0.31	0.00	148.6
	19-20	19.5	9.54	25.09	12.96	36.75	15.63	0.02	0.00	134.0
	21-22	21.5	7.10	16.60	12.82	40.51	21.46	1.30	0.23	170.7
	22-23	22.5	9.48	19.42	14.34	39.61	17.02	0.14	0.00	144.6
	23-24	23.5	12.90	26.11	16.78	32.60	11.50	0.13	0.00	116.5
	24-25	24.5	8.09	18.19	15.54	40.44	17.42	0.33	0.00	149.5
	25-26	25.5	6.80	15.19	17.49	42.77	17.50	0.24	0.00	154.6
	29-30	29.5	9.46	27.62	13.45	35.54	13.93	0.01	0.00	126.6
	34-35	34.5	9.77	34.77	12.05	26.49	12.32	2.74	1.86	150.9
	40-41	40.5	7.26	36.96	14.26	28.03	12.08	0.79	0.62	125.0
	41-42	41.5	6.19	41.01	14.78	24.79	10.60	1.67	0.96	126.6
	42-43	42.5	4.64	30.68	14.97	32.76	15.06	1.17	0.72	146.9
	43-44	43.5	5.61	27.17	13.91	31.49	16.94	3.50	1.39	175.0
	44-45	44.5	6.80	26.52	13.77	33.17	16.61	2.16	0.96	160.8
	47-48	47.5	9.31	33.53	14.22	29.88	12.72	0.34	0.00	117.1
	50-51	50.5	7.40	20.35	14.63	38.84	18.28	0.50	0.00	150.9

	54-55	54.5	7.94	22.19	14.53	35.89	17.24	1.43	0.78	160.0
	55-56	55.5	5.16	11.06	13.88	43.48	23.29	2.43	0.71	196.9
	60-61	60.5	5.05	8.17	13.19	48.47	23.68	1.13	0.33	191.4
	65-66	65.5	5.12	7.90	13.23	44.23	24.83	3.66	1.03	215.4
	70-71	70.5	5.67	8.30	14.58	44.98	22.97	2.23	1.27	205.2
	75-76	75.5	4.26	4.69	12.44	52.74	24.44	0.84	0.59	202.0
	80-81	80.5	3.28	3.08	11.42	53.77	27.51	0.94	0.00	205.7
	85-86	85.5	5.15	4.66	11.57	53.53	24.74	0.35	0.00	192.0
	90-91	90.5	6.87	6.81	14.65	44.48	22.55	2.98	1.67	213.5
	92-93	92.5	2.59	3.17	11.55	53.74	27.38	1.30	0.27	211.6
N20	0-1	0.5	14.91	50.19	13.24	11.23	6.24	3.46	0.73	97.7
	2-3	2.5	16.98	50.21	13.06	11.92	5.77	1.96	0.10	78.0
	4-5	4.5	15.52	46.96	14.02	14.24	6.11	2.54	0.63	94.5
	6-7	6.5	15.76	49.85	13.98	12.23	5.43	2.30	0.45	85.2
	8-9	8.5	16.39	47.40	14.05	13.33	5.94	2.34	0.55	90.2
	10-11	10.5	13.71	46.90	14.12	14.73	6.80	2.89	0.84	103.5
	14-15	14.5	14.42	45.36	13.72	15.23	7.50	3.07	0.69	105.0
	18-19	18.5	14.88	48.02	13.53	14.02	6.49	2.50	0.57	94.0
	24-25	24.5	13.85	42.91	13.02	17.74	9.21	2.81	0.46	108.7
	30-31	30.5	13.10	43.10	13.19	17.03	8.71	3.63	1.24	123.0
	36-37	36.5	12.13	37.24	14.75	24.15	9.22	1.59	0.92	118.0
	37-38	37.5	12.07	27.75	16.19	31.56	11.68	0.50	0.25	121.7
	38-39	38.5	15.23	29.28	15.18	29.32	10.46	0.29	0.26	111.3
	39-40	39.5	13.89	20.10	15.16	34.06	13.67	1.63	1.50	155.7
	40-41	40.5	14.30	17.60	17.13	37.63	13.21	0.13	0.00	130.0
N21	0-1	0.5	19.68	43.33	10.34	8.47	7.32	7.73	3.13	155.9
	2-3	2.5	16.93	43.32	11.61	9.41	7.81	7.98	2.95	159.4
	5-6	5.5	15.36	42.01	14.03	13.67	7.09	5.61	2.23	139.6
	9-10	9.5	11.97	41.34	15.36	14.65	7.44	6.21	3.04	159.5
	14-15	14.5	11.51	37.75	16.04	17.27	9.07	6.40	1.96	155.4
	19-20	19.5	13.06	42.83	13.11	12.46	7.91	7.48	3.15	165.7
	25-26	25.5	9.80	40.75	15.17	15.39	9.14	7.22	2.54	166.1
	30-31	30.5	12.44	34.27	13.24	17.27	10.83	8.47	3.48	194.0
	35-36	35.5	10.75	31.48	14.09	23.31	11.80	5.53	3.05	181.5
	36-37	36.5	13.23	37.87	13.41	17.16	8.98	6.60	2.75	164.6
	37-38	37.5	10.92	36.39	13.05	19.05	10.70	6.60	3.30	181.2
	40-41	40.5	10.02	32.85	12.03	20.68	13.31	7.97	3.15	198.5
	43-44	43.5	8.62	26.50	8.74	28.98	20.02	4.79	2.36	198.8
	47-48	47.5	5.89	18.59	8.58	38.14	24.83	2.69	1.28	199.9
	48-49	48.5	0.38	3.62	4.47	55.12	35.62	0.78	0.00	229.2

	51-52	51.5	0.78	6.07	5.35	55.98	31.47	0.34	0.00	214.4
	54-55	54.5	1.71	12.34	11.36	43.64	24.80	3.48	2.68	236.2
	55-56	55.5	2.89	18.76	10.79	29.46	20.79	11.46	5.87	298.9
	57-58	57.5	1.80	14.14	9.96	37.22	25.52	7.68	3.68	270.0
	58-59	58.5	1.73	13.59	8.46	36.01	28.68	8.47	3.07	274.2
	60-61	60.5	0.63	7.36	6.48	51.00	33.17	1.37	0.00	220.1
	62-63	62.5	0.91	9.90	6.34	50.27	31.73	0.86	0.00	210.7
	65-66	65.5	0.20	4.26	4.00	55.29	35.65	0.60	0.00	228.1
	69-70	69.5	0.00	0.00	5.51	55.38	37.94	1.18	0.00	240.9
	74-75	74.5	0.38	4.34	3.88	45.85	41.76	3.80	0.00	254.7
	79-80	79.5	0.23	3.88	2.12	31.09	48.65	14.04	0.00	322.3
	80-81	80.5	0.18	3.19	1.32	26.77	50.52	18.03	0.00	348.1
	84-85	84.5	3.42	21.63	4.45	24.22	34.31	11.93	0.05	252.6
	89-90	89.5	4.75	28.54	7.52	30.78	25.34	3.08	0.00	174.4
	93-94	93.5	5.53	34.89	8.15	24.48	20.92	5.30	0.73	176.1
	94-95	94.5	7.38	40.61	8.88	23.25	17.08	2.56	0.24	136.7
	98-99	98.5	6.46	26.90	8.77	29.07	23.05	5.09	0.66	187.8
	100-102	101	6.97	17.79	8.20	37.94	27.35	1.75	0.00	183.3
	102-104	103	4.91	10.51	4.55	42.70	35.14	2.19	0.00	216.8
	108-110	109	4.43	13.40	5.95	43.60	31.29	1.34	0.00	201.1
	116-118	117	4.49	12.30	5.36	44.37	32.32	1.16	0.00	204.2
	122-124	123	4.50	10.96	5.57	45.49	32.39	1.09	0.00	205.8
	128-130	129	3.68	7.12	3.14	44.94	39.18	1.94	0.00	231.4
N30	0-1	0.5	8.72	15.03	27.70	39.97	7.30	0.46	0.83	136.0
	2-3	2.5	8.53	14.63	28.98	40.77	7.08	0.00	0.00	122.9
	4-5	4.5	6.91	13.04	28.87	43.28	7.90	0.00	0.00	129.6
	9-10	9.5	7.21	13.01	27.09	43.52	9.17	0.00	0.00	132.9
	15-16	15.5	7.22	17.73	25.29	37.57	8.32	1.93	1.94	160.0
	18-19	18.5	7.49	15.81	27.13	41.31	8.25	0.00	0.00	126.4
	22-23	22.5	5.64	15.06	21.75	36.09	13.04	5.54	2.88	208.9
	23-24	23.5	7.16	14.07	23.63	40.36	10.60	2.02	2.17	174.5
	25-26	25.5	6.90	12.73	21.55	39.04	12.16	4.07	3.56	209.4
	27-28	27.5	10.64	19.06	23.04	33.40	9.20	2.39	2.27	162.5
	28-29	28.5	13.30	23.58	24.81	32.18	6.13	0.00	0.00	103.1
	33-34	33.5	12.60	25.61	20.04	28.69	8.96	1.91	2.20	148.2
	39-40	39.5	13.35	26.21	20.37	30.58	8.95	0.24	0.30	113.2
	44-45	44.5	12.69	25.74	18.54	28.54	9.46	2.48	2.55	157.0
	50-51	50.5	13.28	29.07	16.75	27.68	9.31	1.90	2.01	142.0
	57-58	57.5	13.79	25.26	21.98	28.04	8.49	1.44	1.01	127.1
	65-66	65.5	17.66	35.19	17.77	20.61	6.20	1.51	1.07	105.9
	74-75	74.5	18.30	34.32	14.97	19.08	7.23	3.77	2.34	137.5

	84-85	84.5	13.84	25.42	19.23	26.45	8.86	3.50	2.71	161.5
	90-91	90.5	11.99	22.64	20.18	29.08	10.03	3.74	2.36	166.9
	96-97	96.5	14.99	29.00	21.05	26.58	7.74	0.42	0.22	103.3
	102-104	103	15.10	23.36	22.01	29.64	8.21	1.02	0.67	120.4
	108-110	109	14.33	23.75	21.90	29.84	7.38	1.43	1.38	130.5
	116-118	117	18.37	31.30	18.49	21.95	6.36	2.06	1.48	118.3
	122-124	123	15.93	40.69	17.04	20.07	5.75	0.42	0.10	82.4
	124-126	125	14.64	45.31	15.42	18.33	5.43	0.50	0.37	82.0
	126-128	127	14.88	34.03	17.86	23.40	7.35	1.63	0.84	112.0
	128-130	129	15.56	45.11	14.08	16.95	5.50	1.73	1.08	96.9
	130-132	131	16.34	33.73	18.06	23.51	7.01	0.79	0.57	101.5
	132-134	133	16.40	37.60	16.31	20.91	6.85	1.22	0.70	100.6
	134-136	135	12.12	26.80	18.42	28.51	9.42	2.59	2.13	151.9
	136-138	137	13.32	33.11	18.09	25.60	8.21	0.83	0.83	113.3
	142-144	143	16.31	43.24	14.60	18.87	6.32	0.45	0.21	82.2
	150-152	151	14.56	39.44	16.33	22.49	7.11	0.08	0.00	86.7
	154-156	155	9.57	30.73	16.82	30.40	11.31	0.60	0.58	125.5
	158-160	159	10.69	49.90	13.82	17.66	6.48	0.94	0.52	89.8
	162-164	163	8.42	46.53	15.18	21.56	7.74	0.44	0.14	92.5
	168-170	169	10.20	52.84	13.36	17.80	5.79	0.01	0.00	74.1
	178-180	179	11.15	49.48	14.28	16.89	6.50	1.40	0.31	89.0
	184-186	185	13.29	55.83	12.71	12.19	4.75	1.15	0.09	69.4
	190-192	191	16.58	54.06	12.75	11.42	4.12	1.00	0.07	64.1
	200-202	201	8.04	35.77	16.88	29.92	9.38	0.01	0.00	106.5
	202-204	203	6.94	30.33	16.62	32.56	11.32	1.09	1.14	140.0
	204-206	205	4.67	20.06	21.17	42.09	12.00	0.01	0.00	137.1
	206-208	207	6.19	29.72	20.05	35.17	8.86	0.00	0.00	114.9
	208-211	209.5	9.23	45.80	16.34	23.23	5.41	0.00	0.00	82.7
N31	0-1	0.5	4.05	4.14	7.38	53.56	30.18	0.68	0.00	209.6
	3-4	3.5	2.25	3.50	7.41	58.78	27.87	0.19	0.00	207.0
	7-8	7.5	0.36	0.93	10.29	59.67	28.56	0.20	0.00	213.2
	12-13	12.5	0.00	0.00	9.65	59.69	30.29	0.37	0.00	219.8
	18-19	18.5	1.73	2.41	10.27	61.34	24.16	0.08	0.00	200.0
	26-27	26.5	4.60	11.15	14.64	40.91	19.73	5.19	3.78	243.8
	33-34	33.5	5.54	9.99	14.10	46.08	23.55	0.75	0.00	181.1
	34-35	34.5	8.83	18.31	15.11	37.25	18.41	1.29	0.81	166.0
	39-40	39.5	12.05	23.82	15.27	32.48	14.79	1.12	0.49	140.4
	45-46	45.5	13.01	25.57	14.58	30.71	14.72	1.23	0.18	132.9
	52-53	52.5	12.36	22.70	15.62	33.29	14.79	0.76	0.49	139.3
	53-54	53.5	11.47	21.54	16.21	34.32	14.35	1.03	1.09	150.1
	56-57	56.5	10.66	20.76	16.06	35.08	15.39	1.09	0.96	153.3

	58-59	58.5	12.58	22.00	15.89	32.84	13.86	1.49	1.35	152.5
	60-61	60.5	8.69	17.37	15.87	37.61	17.48	1.81	1.18	172.2
	61-62	61.5	8.20	17.80	14.73	37.23	18.62	2.24	1.18	177.5
	69-70	69.5	12.86	26.43	17.57	32.24	10.89	0.01	0.00	114.5
	77-78	77.5	9.43	17.43	16.27	36.91	16.09	2.10	1.78	177.3
	86-87	86.5	12.84	26.08	16.71	28.58	12.36	2.37	1.06	144.0
	95-96	95.5	12.30	23.94	16.31	29.03	12.57	3.52	2.33	170.6
	104-106	105	14.79	30.13	15.34	24.52	10.22	2.87	2.14	147.8
	114-116	115	12.27	35.04	17.07	24.87	9.16	1.01	0.59	112.2
	126-128	127	14.19	31.30	18.52	23.10	8.24	2.95	1.71	136.0
	132-134	133	15.91	28.89	17.76	21.60	7.80	5.03	3.02	163.4
	136-138	137	17.51	28.84	21.20	24.68	7.41	0.29	0.07	96.5
	140-142	141	18.65	30.22	19.52	22.82	7.08	1.02	0.70	104.7
	142-144	143	17.99	31.03	18.77	23.08	7.70	0.72	0.72	104.9
	148-150	149	11.74	16.42	17.55	36.73	15.30	1.15	1.11	158.9
	154-156	155	10.89	13.81	17.78	39.88	16.65	0.58	0.42	154.8
	160-162	161	8.97	11.39	16.19	40.44	19.52	2.28	1.20	186.7
	166-168	167	10.27	16.03	15.46	39.01	18.13	0.82	0.28	156.6
	168-170	169	8.27	16.34	14.85	40.12	19.31	0.82	0.29	162.5
	170-172	171	9.07	23.04	16.61	36.82	14.40	0.07	0.00	133.6
	172-174	173	8.16	17.25	15.95	39.59	17.35	0.94	0.76	163.3
N32	0-1	0.5	11.07	22.81	25.05	34.83	6.25	0.00	0.00	107.5
	2-3	2.5	8.27	19.38	26.31	38.42	7.61	0.00	0.00	119.1
	4-5	4.5	8.17	17.92	24.40	36.00	9.20	2.76	1.55	159.9
	7-8	7.5	4.45	7.13	28.30	52.10	8.03	0.00	0.00	143.7
	8-9	8.5	4.29	7.85	22.95	53.07	11.85	0.00	0.00	154.0
	10-11	10.5	3.80	5.88	22.28	52.34	13.06	1.08	1.57	185.7
	14-15	14.5	6.76	11.29	23.75	41.73	11.59	2.41	2.48	187.0
	18-19	18.5	10.19	20.74	20.83	33.81	10.77	1.91	1.75	156.3
	23-24	23.5	10.46	17.97	21.37	35.23	11.36	1.92	1.68	159.9
	24-25	24.5	10.86	17.37	23.02	36.58	9.80	1.26	1.11	145.2
	35-36	35.5	11.22	17.77	19.01	33.64	11.50	3.66	3.20	189.1
	45-46	45.5	10.47	17.11	21.34	37.45	11.40	1.05	1.19	150.5
	55-56	55.5	11.17	21.04	21.85	33.25	9.34	1.60	1.76	149.3
	65-66	65.5	10.47	15.51	23.23	32.85	8.99	5.18	3.78	200.8
	75-76	75.5	18.04	29.85	17.71	22.86	5.96	2.90	2.68	139.9
	85-86	85.5	20.25	34.97	17.84	20.59	4.87	0.79	0.70	90.8
	95-96	95.5	20.95	35.15	15.90	18.29	5.78	2.30	1.62	111.9
	106-108	107	18.26	33.16	15.08	23.82	8.80	0.55	0.33	100.1
	116-118	117	21.72	37.10	13.98	17.58	5.52	2.28	1.82	110.8
	124-126	125	17.61	23.94	13.10	24.91	12.63	5.45	2.37	174.1

	132-134	133	12.71	23.01	14.06	31.62	14.48	2.42	1.70	162.4
	134-136	135	14.82	29.57	13.38	27.91	12.36	1.07	0.89	128.6
	144-146	145	13.71	28.20	14.44	29.72	12.23	0.93	0.77	129.2
	154-156	155	10.46	30.95	14.48	31.30	12.68	0.13	0.00	117.8
	164-166	165	11.59	30.17	13.37	30.13	13.22	0.74	0.79	131.8
	174-176	175	10.81	33.10	14.97	30.41	10.70	0.01	0.00	109.1
	184-186	185	8.63	28.96	17.38	33.78	11.25	0.01	0.00	118.6
	192-194	193	8.98	34.17	17.45	29.52	9.87	0.01	0.00	107.9
	200-202	201	5.50	35.34	19.18	27.59	10.00	1.87	0.52	127.0
	202-204	203	6.75	39.87	18.31	24.86	8.87	0.94	0.40	110.7
	210-212	211	7.09	28.76	18.62	33.75	11.77	0.02	0.00	121.7
	216-218	217	7.35	37.38	17.34	25.59	10.13	1.44	0.77	123.5
	220-222	221	11.22	29.11	14.71	29.18	13.02	1.79	0.98	140.4
	228-230	229	10.27	23.84	11.18	31.99	19.27	2.68	0.78	166.0
	236-238	237	6.44	12.85	7.05	43.70	28.55	1.41	0.00	193.0
	242-244	243	11.67	31.23	10.48	30.71	15.03	0.53	0.35	129.0
	244-246	245	6.48	42.75	12.34	20.74	13.00	3.59	1.10	141.7
	248-250	249	5.16	38.64	15.38	24.54	14.05	1.99	0.24	131.2
	252-254	253	4.65	21.88	11.72	39.31	21.68	0.76	0.00	163.3
	254-256	255	4.08	9.67	8.90	55.57	21.77	0.01	0.00	181.1
	262-264	263	4.79	6.81	6.68	54.18	27.34	0.19	0.00	197.1
	270-272	271	5.68	11.10	14.99	51.88	16.35	0.01	0.00	161.2
	274-276	275	4.34	8.15	9.09	56.32	22.08	0.02	0.00	183.5
	278-280	279	3.34	8.44	9.71	55.53	22.93	0.05	0.00	186.1
	284-287	285.5	4.78	11.25	10.56	49.02	23.92	0.47	0.00	182.4
N33	0-1	0.5	15.77	40.02	21.33	17.87	4.35	0.61	0.04	78.5
	3-4	3.5	13.99	36.06	21.48	20.45	6.16	1.47	0.40	99.6
	5-6	5.5	12.83	32.64	22.45	23.26	6.81	1.39	0.61	109.3
	7-8	7.5	11.03	28.28	22.02	27.14	9.08	1.73	0.73	126.5
	9-10	9.5	11.10	27.83	21.68	26.28	9.11	2.66	1.35	140.0
	10-11	10.5	10.02	23.87	21.02	30.55	11.21	2.06	1.28	148.0
	15-16	15.5	12.12	28.60	18.27	27.27	10.53	2.07	1.15	136.9
	20-21	20.5	11.77	29.90	18.59	27.27	9.55	1.64	1.28	132.6
	25-26	25.5	12.98	30.02	18.00	28.65	10.17	0.19	0.00	108.4
	30-31	30.5	12.51	24.88	16.93	30.36	11.71	2.05	1.56	149.4
	38-39	38.5	11.24	19.34	19.61	32.89	12.40	3.10	1.42	162.7
	45-46	45.5	12.68	18.78	23.90	34.04	8.53	1.04	1.03	135.3
	56-58	57	13.54	21.01	24.75	29.60	6.12	2.66	2.33	150.3
	66-68	67	11.53	17.04	28.82	33.30	6.25	1.81	1.25	138.6
	76-78	77	15.83	25.21	22.55	24.98	5.50	3.43	2.50	146.7
	78-80	79	17.49	29.48	22.65	23.95	5.03	0.82	0.59	99.3

	84-86	85	17.01	31.89	19.72	21.56	5.57	2.59	1.66	122.2
	90-92	91	20.91	37.27	17.58	16.81	4.71	1.74	1.00	95.2
	94-96	95	17.97	32.18	18.69	20.57	6.47	2.47	1.64	122.0
	100-102	101	19.30	35.41	16.57	20.22	6.81	1.12	0.57	96.5
	108-110	109	18.64	34.36	15.15	20.17	7.29	2.59	1.79	123.9
	118-120	119	23.35	42.40	13.33	15.50	5.07	0.23	0.12	68.0
	128-130	129	28.91	46.70	10.50	10.10	3.37	0.35	0.08	51.1
	138-140	139	30.06	44.45	10.22	9.65	3.40	1.62	0.61	66.0
	148-150	149	12.87	20.80	17.58	33.37	12.29	1.70	1.39	151.4
	152-154	153	15.45	34.14	15.82	23.57	8.73	1.44	0.85	114.2
	154-156	155	13.81	34.02	15.23	25.47	9.75	1.11	0.63	114.7
	158-160	159	14.80	35.46	15.40	24.02	8.81	1.05	0.46	106.5
	160-162	161	14.14	31.50	14.78	24.71	10.65	2.89	1.33	137.8
	168-170	169	12.10	30.50	19.08	27.17	9.97	0.87	0.32	115.5
	178-180	179	15.39	44.07	13.16	17.09	7.78	1.60	0.93	101.6
	188-190	189	12.67	38.28	15.85	23.37	8.89	0.61	0.33	102.2
	190-192	191	13.18	39.48	15.02	23.64	8.59	0.10	0.00	93.2
	192-194	193	14.91	52.63	12.18	14.00	5.76	0.51	0.01	69.9
	202-204	203	18.91	55.96	10.32	9.79	4.39	0.58	0.06	58.1
	212-214	213	26.34	62.12	7.10	3.04	1.21	0.19	0.00	29.7
	224-226	225	11.97	48.12	15.55	15.84	6.79	1.61	0.13	88.2
	226-228	227	12.26	57.46	13.28	10.57	4.70	1.52	0.22	72.5
	228-230	229	9.81	47.33	15.05	18.45	8.10	1.19	0.06	93.0
	230-232	231	8.55	54.13	16.46	12.91	5.59	2.02	0.35	87.4
	236-238	237	7.98	60.12	14.77	9.59	5.28	2.15	0.11	78.8
	240-242	241	7.53	51.27	17.93	14.88	6.33	1.94	0.12	91.0
	244-246	245	3.56	18.82	23.31	41.92	12.40	0.01	0.00	139.9
	246-248	247	2.03	8.47	22.34	51.80	15.35	0.01	0.00	164.0
	252-254	253	3.90	18.01	19.00	43.16	15.79	0.14	0.00	150.4
	254-256	255	5.49	16.74	17.19	43.06	17.40	0.12	0.00	154.3
	258-260	259	9.98	20.59	16.56	38.60	14.26	0.02	0.00	134.8
	260-262	261	9.24	17.84	14.39	38.97	18.01	0.91	0.64	161.1
N34	0-1	0.5	9.05	17.87	27.26	35.29	8.11	1.30	1.13	141.6
	3-4	3.5	7.48	25.67	26.98	31.21	6.34	1.15	1.18	129.7
	6-7	6.5	8.22	22.12	25.87	32.21	7.25	2.35	1.97	152.2
	9-10	9.5	7.00	19.05	27.15	34.14	7.87	2.88	1.90	160.9
	12-13	12.5	8.07	19.53	27.03	33.17	7.58	2.76	1.86	156.9
	15-16	15.5	6.99	16.40	26.43	35.60	10.06	3.18	1.34	163.9
	20-21	20.5	5.96	11.56	20.83	36.13	13.20	7.18	5.15	251.3
	21-22	21.5	5.99	12.15	20.47	35.74	12.55	7.05	6.04	260.1
	23-24	23.5	5.30	10.60	18.88	39.68	16.26	5.26	4.03	236.9

	30-31	30.5	9.61	17.35	20.72	34.25	11.42	3.90	2.76	186.6
	35-36	35.5	11.29	19.09	22.40	35.16	10.20	1.03	0.84	138.9
	40-41	40.5	9.92	14.84	19.72	34.61	12.27	5.27	3.36	206.7
	50-51	50.5	8.37	11.56	26.55	38.84	9.07	2.99	2.62	182.2
	60-61	60.5	9.16	12.63	26.80	37.27	7.99	2.96	3.19	184.2
	70-71	70.5	8.79	11.06	22.61	40.49	12.15	2.43	2.46	185.9
	80-81	80.5	10.22	14.14	23.24	41.26	11.14	0.01	0.00	133.1
	90-91	90.5	13.03	19.04	23.82	32.41	8.47	1.91	1.33	142.4
	100-102	101	14.63	27.56	14.91	24.03	11.40	4.94	2.53	169.8
	110-112	111	14.89	31.53	14.81	23.68	9.93	3.21	1.95	144.5
	118-120	119	22.10	32.25	13.97	20.10	7.70	2.48	1.40	117.1
	120-122	121	20.65	31.89	14.58	21.56	7.81	2.00	1.52	118.9
	128-130	129	18.70	24.62	15.13	24.23	9.49	4.87	2.96	168.4
	130-132	131	18.64	21.83	15.02	26.12	10.86	5.30	2.23	168.2
	132-134	133	14.00	16.27	14.42	27.08	13.52	10.15	4.56	243.9
	138-140	139	18.38	26.07	11.98	18.27	8.94	10.95	5.42	229.7
	144-146	145	21.64	29.37	11.97	17.05	8.38	8.05	3.55	180.0
	152-154	153	17.68	22.61	8.66	16.30	12.08	15.23	7.44	291.9
	154-156	155	20.54	28.43	9.94	23.02	14.60	3.26	0.19	129.9
	158-160	159	18.12	33.02	9.26	20.01	12.23	5.57	1.80	155.0
	160-162	161	16.44	29.23	8.80	20.67	14.45	8.24	2.17	186.1
	168-170	169	22.76	26.29	8.35	18.64	14.01	8.23	1.73	173.9
	176-178	177	24.62	33.86	7.81	13.96	10.81	7.49	1.46	146.7
	184-186	185	10.83	21.64	14.60	35.72	15.28	1.12	0.83	150.8
	186-188	187	9.42	20.49	13.12	33.57	16.79	4.87	1.75	189.7
	194-196	195	7.11	19.32	16.38	38.02	16.54	1.79	0.84	165.4
	200-202	201	5.25	12.92	10.78	42.11	24.87	2.77	1.31	208.5
	204-206	205	6.17	16.33	9.03	39.89	25.33	2.34	0.90	196.7
	208-210	209	8.06	17.47	6.87	31.52	26.95	7.92	1.22	229.0
	212-214	213	8.99	17.26	7.12	35.48	25.38	4.23	1.54	209.8
	218-220	219	11.45	22.25	6.24	22.75	21.59	12.25	3.46	256.9
	222-224	223	13.69	29.96	7.37	22.14	16.50	7.39	2.95	200.1
	226-228	227	9.60	25.65	7.09	21.12	20.04	12.54	3.95	259.3
N36	0-1	0.5	31.84	45.31	7.64	6.76	3.79	3.42	1.24	81.5
	3-4	3.5	25.45	35.54	9.95	15.43	6.34	4.45	2.83	134.7
	4-5	4.5	26.38	38.92	10.03	14.02	6.17	3.23	1.27	101.7
	5-6	5.5	27.48	42.21	9.08	11.53	5.26	3.25	1.19	93.0
	8-9	8.5	25.69	37.12	8.87	14.51	7.02	4.81	1.98	124.8
	11-12	11.5	27.01	36.24	9.80	15.99	6.33	2.86	1.77	109.3
	15-16	15.5	26.10	35.03	9.51	16.55	6.92	3.63	2.26	124.1
	19-20	19.5	22.94	35.67	9.09	15.51	6.49	6.27	4.03	163.7

25-26	25.5	22.13	36.29	10.05	17.20	7.73	4.40	2.19	133.1
30-31	30.5	19.82	31.33	11.42	21.01	9.16	4.54	2.72	153.5
35-36	35.5	16.07	26.88	13.84	26.55	11.79	3.62	1.25	146.3
40-41	40.5	14.42	20.26	14.50	28.63	13.56	5.73	2.90	193.8
45-46	45.5	10.96	22.72	14.25	27.07	15.15	7.16	2.69	204.0
46-47	46.5	10.65	25.70	14.41	27.21	15.83	5.33	0.88	169.0
47-48	47.5	11.02	20.82	14.53	28.99	15.58	6.41	2.66	203.1
48-49	48.5	7.75	27.41	14.02	23.34	15.90	9.20	2.39	211.3
49-50	49.5	8.57	23.44	13.55	25.84	17.55	8.63	2.43	216.6
52-53	52.5	7.26	27.58	13.35	25.34	16.92	7.68	1.87	199.8
54-55	54.5	7.59	25.10	12.15	24.21	17.70	10.26	2.98	232.3
55-56	55.5	6.69	21.03	12.83	28.91	19.94	8.51	2.09	223.2
56-57	56.5	5.92	18.00	13.24	31.77	21.31	7.65	2.11	227.1
60-61	60.5	6.45	14.45	14.75	32.56	20.46	8.27	3.07	243.9
62-63	62.5	9.85	26.37	13.34	26.71	16.11	5.89	1.73	184.5
63-64	63.5	6.44	20.14	13.35	31.20	20.38	6.90	1.60	211.0
65-66	65.5	5.91	24.56	13.40	29.53	18.40	6.32	1.90	202.8
66-67	66.5	5.36	20.58	13.17	31.04	20.96	7.40	1.49	214.8
67-68	67.5	7.73	30.63	15.99	29.86	14.50	1.19	0.10	133.0
71-72	71.5	6.54	25.60	15.45	26.68	15.95	7.55	2.23	204.5
76-77	76.5	5.70	22.71	13.69	29.09	19.53	7.64	1.64	211.0
81-82	81.5	5.21	22.59	11.45	28.65	20.21	9.23	2.67	235.9
86-87	86.5	5.60	24.72	13.61	32.70	17.91	4.04	1.42	184.1
94-95	94.5	5.04	19.52	11.61	34.47	21.48	6.04	1.85	216.2
95-96	95.5	4.48	16.65	11.68	36.33	22.79	6.25	1.81	224.3
96-97	96.5	5.11	18.78	13.43	37.81	20.98	3.18	0.72	185.9
99-100	99.5	1.69	6.91	12.87	49.26	26.33	2.41	0.54	213.5
100-102	101	1.73	6.15	13.64	48.07	26.36	3.21	0.83	221.7
102-104	103	0.55	4.81	12.37	48.96	30.03	3.06	0.23	225.1
108-110	109	0.00	1.76	12.09	56.91	28.03	1.10	0.11	216.0
118-120	119	0.00	0.00	13.12	53.97	30.87	2.05	0.00	226.4
124-126	125	1.36	2.84	11.12	54.24	28.56	1.67	0.21	217.7
128-130	129	0.00	1.82	12.13	55.20	28.93	1.54	0.38	223.1
138-140	139	1.72	3.97	12.37	55.67	25.61	0.67	0.00	201.6
148-150	149	1.17	2.98	11.76	55.20	27.47	1.17	0.26	213.5
156-158	157	0.00	1.78	12.81	58.59	26.20	0.63	0.00	208.5
164-166	165	0.53	3.52	11.73	55.49	27.48	1.17	0.09	211.7
176-178	177	0.24	2.91	12.24	57.30	26.64	0.68	0.00	207.8
188-190	189	0.00	0.00	15.98	57.24	25.58	0.78	0.42	213.5
196-198	197	0.60	2.85	14.60	64.50	17.44	0.01	0.00	185.4
202-204	203	2.22	3.56	15.35	62.98	15.88	0.01	0.00	178.1
210-212	211	3.41	3.16	14.84	62.54	16.05	0.01	0.00	177.4

	214-216	215	5.34	3.65	15.06	60.73	15.22	0.01	0.00	171.7
N37	0-1	0.5	11.75	21.37	15.19	36.46	15.06	0.17	0.00	133.7
	3-4	3.5	7.59	13.19	17.07	43.46	18.34	0.35	0.00	158.6
	6-7	6.5	10.29	18.51	18.48	39.52	13.19	0.01	0.00	133.6
	10-11	10.5	12.42	20.11	14.24	35.91	16.84	0.48	0.00	140.0
	14-15	14.5	7.19	18.19	12.93	39.37	21.43	0.89	0.00	163.5
	16-17	16.5	9.42	23.34	14.41	36.82	15.95	0.07	0.00	136.8
	17-18	17.5	8.21	18.10	12.40	38.38	21.66	1.25	0.00	164.4
	18-19	18.5	9.35	24.32	12.54	34.46	17.73	1.14	0.46	151.0
	19-20	19.5	8.17	21.64	11.72	33.77	19.90	3.52	1.29	184.3
	21-22	21.5	9.41	18.36	13.37	37.57	18.97	1.60	0.72	167.2
	23-24	23.5	13.57	29.55	13.54	29.12	12.66	1.21	0.35	124.8
	26-27	26.5	8.60	15.19	12.90	38.26	20.68	3.27	1.11	190.1
	28-29	28.5	5.12	20.34	15.72	39.99	18.31	0.51	0.00	154.3
	29-30	29.5	10.44	20.68	14.50	36.43	15.80	1.04	1.11	157.3
	30-31	30.5	3.49	18.67	14.98	42.06	20.11	0.69	0.00	164.2
	33-34	33.5	4.35	23.39	14.23	38.93	18.65	0.45	0.00	152.6
	36-37	36.5	4.81	20.04	12.71	39.39	21.57	1.16	0.31	170.5
	37-38	37.5	6.57	23.36	12.05	36.14	19.78	1.62	0.48	164.0
	38-39	38.5	6.33	19.58	10.90	33.92	21.68	5.41	2.18	215.4
	39-40	39.5	7.74	24.04	12.00	31.51	19.20	4.41	1.10	182.2
	42-43	42.5	6.94	24.36	12.74	29.73	17.23	6.21	2.79	209.7
	46-47	46.5	3.98	13.32	12.51	42.29	24.87	2.42	0.62	198.5
	51-52	51.5	4.61	10.17	11.83	47.46	24.89	1.05	0.00	188.0
	56-57	56.5	5.94	24.99	11.52	31.56	19.86	4.66	1.47	191.5
	62-63	62.5	6.83	19.35	10.87	35.70	21.84	3.94	1.47	198.6
	68-69	68.5	8.84	24.45	11.76	31.57	17.22	3.97	2.20	187.9
	74-75	74.5	6.02	17.36	10.74	34.61	24.47	6.02	0.79	210.4
	76-77	76.5	6.13	19.48	10.53	34.28	23.09	5.07	1.42	207.4
N39	0-1	0.5	11.67	15.56	10.02	26.26	17.73	12.77	5.99	291.2
	2-3	2.5	10.22	10.69	9.59	28.83	20.26	13.90	6.51	318.2
	4-5	4.5	8.94	9.77	10.01	32.98	21.66	11.06	5.59	298.0
	6-7	6.5	8.89	13.97	9.50	28.32	18.74	12.88	7.70	322.7
	8-9	8.5	9.70	14.06	10.05	30.18	19.99	10.56	5.46	283.0
	10-11	10.5	9.01	12.21	9.56	29.76	21.46	12.49	5.51	300.5
	12-13	12.5	10.74	19.66	10.36	27.57	17.40	9.20	5.08	255.9
	14-15	14.5	10.82	17.80	9.85	25.65	17.37	12.05	6.47	291.1
	16-17	16.5	11.18	18.50	7.49	17.77	13.33	19.74	11.98	392.5
	20-21	20.5	15.51	20.52	9.56	22.63	15.41	11.25	5.12	254.5
	24-25	24.5	19.00	22.69	11.45	20.72	10.59	10.08	5.46	233.5

	26-27	26.5	20.82	29.41	12.44	20.91	9.82	4.84	1.77	144.9
N40	0-1	0.5	13.83	23.73	35.29	25.21	1.34	0.51	0.08	89.9
	2-3	2.5	10.20	20.07	39.00	28.97	1.76	0.00	0.00	95.9
	4-5	4.5	9.48	25.54	36.48	26.91	1.59	0.00	0.00	90.0
	6-7	6.5	9.33	20.66	37.94	29.18	1.79	0.58	0.52	106.6
	9-10	9.5	8.21	18.53	39.30	31.65	2.31	0.00	0.00	102.0
	12-13	12.5	8.65	19.98	38.14	29.36	1.94	1.10	0.83	115.6
	14-15	14.5	8.63	20.01	34.70	30.45	3.39	1.79	1.03	126.3
	18-19	18.5	9.99	18.64	31.91	30.44	4.66	2.68	1.68	143.5
	24-25	24.5	7.67	14.57	32.25	34.54	6.50	2.57	1.90	158.8
	28-29	28.5	9.99	20.58	28.10	28.84	7.27	3.55	1.68	152.8
	32-33	32.5	11.00	23.86	25.90	27.55	8.14	2.45	1.10	136.8
	35-36	35.5	10.92	24.20	23.41	25.75	9.93	3.96	1.84	159.0
	38-39	38.5	13.77	32.63	18.61	22.33	9.06	2.29	1.31	128.5
	40-41	40.5	14.86	33.95	18.07	21.18	9.30	2.08	0.57	115.2
	41-42	41.5	15.66	35.58	18.08	20.51	8.33	1.37	0.48	105.0
	43-44	43.5	14.89	33.65	18.49	22.80	8.31	1.05	0.81	111.0
	45-46	45.5	15.24	34.43	15.44	20.77	10.33	2.64	1.15	127.9
	46-47	46.5	14.89	38.08	16.27	20.67	8.30	1.11	0.68	104.5
	49-50	49.5	13.89	39.42	15.40	21.15	8.95	0.93	0.27	99.5
	55-56	55.5	14.26	31.05	13.56	21.41	11.32	5.55	2.85	173.2
	58-59	58.5	11.28	21.84	10.71	22.99	16.09	11.04	6.07	271.4
	59-60	59.5	13.29	22.86	13.59	28.20	14.90	4.91	2.24	182.6
	60-61	60.5	11.25	19.98	12.63	31.13	18.09	4.66	2.26	195.8
	63-64	63.5	6.06	15.70	12.08	39.39	24.09	2.47	0.22	185.5
	67-68	67.5	4.85	19.47	10.72	34.32	25.30	4.76	0.58	201.9
	68-69	68.5	4.12	20.73	10.81	34.27	24.45	4.80	0.83	202.9
	71-72	71.5	3.72	14.59	8.74	36.07	29.28	6.58	1.03	234.7
	74-75	74.5	3.98	12.88	8.65	38.23	30.90	5.27	0.09	221.2
	75-76	75.5	4.08	13.25	9.81	39.17	28.96	4.63	0.10	212.9
	80-81	80.5	4.10	7.19	8.96	42.43	31.74	5.13	0.46	234.8
	84-85	84.5	3.14	6.75	7.42	46.55	33.30	2.85	0.00	223.5
	85-86	85.5	5.54	7.42	10.37	50.37	25.78	0.52	0.00	190.8
	87-88	87.5	3.87	4.03	8.07	49.23	32.63	2.17	0.00	221.3
	89-90	89.5	4.79	4.60	9.47	49.49	29.77	1.89	0.00	211.3
	90-91	90.5	3.31	4.98	7.82	47.32	33.56	3.02	0.00	226.9
	94-95	94.5	4.91	3.19	9.74	52.47	28.94	0.75	0.00	205.9
	98-99	98.5	5.49	9.36	9.66	40.19	29.78	5.20	0.32	223.6
	102-103	102.5	5.62	13.71	11.44	37.11	25.15	5.44	1.53	223.6
N41	0-1	0.5	4.12	8.24	15.14	45.11	26.09	1.31	0.00	193.2

2-3	2.5	3.32	5.86	13.24	46.43	29.39	1.76	0.00	207.8
4-5	4.5	3.02	6.40	10.05	43.00	33.78	3.75	0.00	227.9
6-7	6.5	4.07	7.60	8.46	41.96	34.30	3.60	0.00	225.8
9-10	9.5	5.00	9.30	9.06	40.10	32.35	4.00	0.20	222.1
10-11	10.5	7.04	12.48	10.39	40.15	27.88	2.07	0.00	192.5
11-12	11.5	6.18	9.54	9.14	40.62	30.97	3.39	0.16	213.5
16-17	16.5	6.47	8.68	11.32	44.58	27.63	1.34	0.00	194.2
21-22	21.5	5.76	8.01	12.01	44.90	27.84	1.49	0.00	196.9
25-26	25.5	5.98	9.52	10.29	41.25	29.84	2.91	0.21	209.0
27-28	27.5	7.00	11.73	10.49	37.29	26.13	5.01	2.36	235.0
29-30	29.5	5.83	9.97	9.63	40.35	30.69	3.53	0.00	211.1
31-32	31.5	8.93	17.22	11.90	37.66	22.82	1.47	0.00	168.4
34-35	34.5	7.76	17.56	11.60	35.96	22.61	3.17	1.33	195.3
35-36	35.5	6.10	22.51	10.78	32.41	22.03	4.73	1.45	199.8
39-40	39.5	3.60	16.14	9.02	35.04	28.40	6.80	1.02	231.8
43-44	43.5	5.21	13.76	8.73	37.84	28.75	4.88	0.83	221.1
47-48	47.5	3.75	12.64	7.42	36.58	32.47	6.92	0.23	236.3
49-50	49.5	2.69	10.72	8.93	41.75	31.49	4.08	0.33	224.4
50-51	50.5	4.67	12.83	9.52	38.84	28.73	4.73	0.67	220.0
53-54	53.5	5.41	17.09	10.18	36.43	26.84	3.81	0.24	198.3
56-57	56.5	3.17	8.00	9.63	41.54	31.38	5.64	0.64	238.9
59-60	59.5	1.97	4.41	7.73	48.91	34.50	2.48	0.00	229.2
60-61	60.5	1.95	6.12	9.18	48.22	31.31	2.58	0.65	228.4
62-63	62.5	1.63	4.97	8.39	50.02	33.08	1.92	0.00	223.1
64-65	64.5	2.10	4.11	7.43	48.56	34.62	2.95	0.23	235.3
65-66	65.5	0.39	2.85	8.08	52.63	34.55	1.50	0.00	229.3
70-71	70.5	0.46	2.84	7.78	52.27	34.93	1.72	0.00	231.1
80-81	80.5	1.58	6.12	8.99	44.46	33.76	4.80	0.29	240.5
85-86	85.5	1.51	2.71	8.72	52.63	32.99	1.43	0.00	223.9
90-91	90.5	0.24	2.23	7.81	51.57	35.68	2.47	0.00	237.6
100-102	101	0.00	1.32	7.21	52.69	36.96	1.83	0.00	239.1
104-106	105	1.53	2.55	7.75	52.14	34.48	1.55	0.00	228.2
110-112	111	0.42	2.09	7.08	50.67	37.01	2.73	0.00	241.8
116-117	116.5	3.86	5.46	6.19	46.08	35.70	2.71	0.00	228.9
120-122	121	2.13	0.88	7.14	49.42	37.30	3.13	0.00	243.0
124-126	125	1.03	1.20	7.75	49.02	37.57	3.42	0.00	245.9
130-133	131.5	0.06	1.59	5.90	50.18	39.39	2.88	0.00	249.1

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